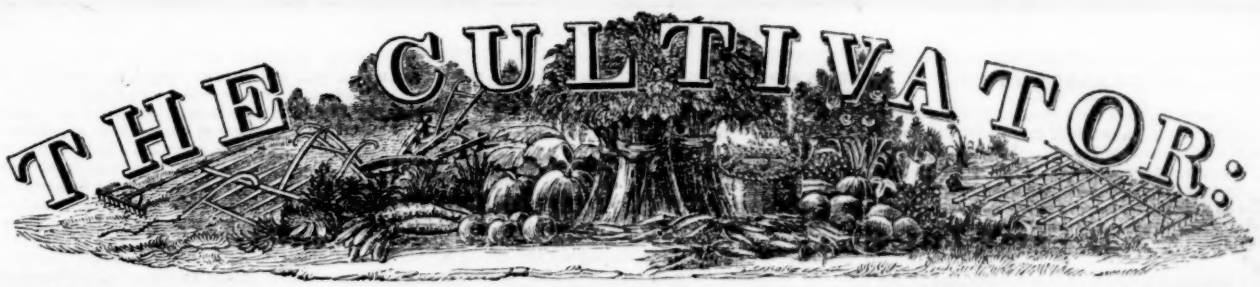

A CONSOLIDATION OF BUEL'S CUTIVATOR AND THE GENESEE FARMER.

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THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

CATTLE SHOW AND FAIR AT ALBANY.

THE next Cattle Show and Fair of the New-York State Agricultural Society is to be held in Albany, on the last week of September next. The List of Premiums, amounting to about $2,000, has heretofore been published. It embraces almost every variety of farm stock and implements, farm and garden products, butter, cheese, maple sugar, silk, and other domestic manufactures, &c., &c., being a much more extensive list than ever before offered in this state. At the meeting of the Executive Committee in June, the judges to award the prizes were appointed, a list of which is given in another part of this paper; and we think the public will see in their names, abundant assurance that justice will be done to all competitors. From present indications, we are inclined to believe, notwithstanding the state of the times, that this Fair will far exceed, in the number and quality of the stock, implements, &c. exhibited, as well as in the attendance of the public, any thing of the kind ever got up in this country. The facilities for traveling to and from Albany, from all quarters, are such as will undoubtedly, with the attractions offered, induce a very general attendance from our own and the neighboring states. The Fair is to be held on the beautiful grounds adjoining the new Bull's Head Tavern, Troy Road, on the northern boundary of the city; and such arrangements have already been made, as to enable us to assure those who intend to bring stock, either for competition for the prizes or for sale, that all necessary accommodations will be provided for their convenience. The Show Yard is to be made large enough for the entire exhibition, and is to be enclosed with a good board fence sufficiently high to prevent ingress or egress except at the gates. The exhibition will commence

On TUESDAY, Sept. 27, on which day the trial of Agricultural Implements will take place.

On WEDNESDAY and THURSDAY, the 28th and 29th, the general exhibition will be held.

On FRIDAY, the 30th, there will be a public sale of such stock as shall be sent in for that purpose. It is expected that there will be a large number of high bred animals of all kinds offered, catalogues of which will be circulated a day or two previous to the sale.

CULTIVATION OF WHEAT.

A farmer of Stirling, in a communication in the Mark Lane Express, says that he has in a great measure succeeded in obviating the evil of having wheat freeze out, or as we term it, winter kill, by plowing in his seed. He first prepares his fields by summer fallowing, liming, &c. and then puts in his wheat in the following manner: "I sow my wheat by a plow drawn by two horses, five or six inches deep, and cover it with the next furrow at ten or eleven inches breadth. I never harrow it after sowing, and there is no treading upon the land." The wheat thus covered grows in drills, being in the deepest part of the furrow, and the writer finds that it comes up better than when sown broad cast, while the roots are longer and stronger, and consequently the plant escapes freezing out in the spring.

New-York State Agricultural Society.

THE regular monthly meeting of the Executive Committee of the N. Y. S. Ag. Society for June, was held at the office of the Cultivator, on the 8th, at 10 o'clock, A. M. Present—the President, James S. Wadsworth, Esq. of Geneseo; Hon. Anthony Van Bergen of Coxsackie, Vice President of the 3d district; Messrs. Geo. Vail of Troy, Alex. Walsh of Lansingburgh, Henry D. Grove of Hoosick, and James L'Amoureaux of Albany, members of the Committee; and Messrs. E. P. Prentice, Treasurer, and L. Tucker, Secretary.

Letters were read from several gentlemen—among them one from the Hon. Daniel Webster; and one from L. B. Langworthy, Esq. Vice President of the 8th district.

The Board then proceeded to the appointment of County Corresponding Committees, agreeably to the provisions of the 4th section of the Constitution,—when the following appointments were made:

County Corresponding Committees.

Albany—C. N. Bement, Albany; W. N. Sill, jr. Cedar Hill; Thomas Hillhouse, Watervliet.

Allegany—Hon. Laurens Hull, Angelica; Jas. McCall, Rushford.

Broome—Hon. John A. Collier, Binghamton.

Cattaraugus—Sam'l Barrows, Olean; H. W. McClure, Franklinville.

Cayuga—D. Wright, Auburn; Ellery Howland, Venice; Abner Hollister, Cato.

Chautauque—Geo. W. Patterson, Mayville; Hon. T. B. Campbell, Westfield; Jabez Burrows, Mayville.

Chemung—Eli C. Frost, Catharine.

Chenango—Wm. S. Randall, Norwich; Wm. Doolittle, p. m., Susquehannah; R. B. Monell, Greene.

Clinton—Levi Platt, p. m., Plattsburgh.

Columbia—Dr. J. P. Beekman, Kinderhook; J. S. Gould, Stockport; W. B Ludlow, Hudson.

Cortland—Dan Hibbard, Cortland Village; P. Barber. Homer.

Delaware—Sam'l Law, p. m., Meredith; Wm. Frisbee, Delhi.

Dutchess—Henry Staats, Red Hook, J. W. Kneevels, Fishkill; D. H. Holden, Poughkeepsie; Theodore Allen, Hyde Park.

Erie—L. F. Allen, Black Rock; T. C. Love, Newstead; Benj. Hodge, Buffalo.

Essex—William B. Ross, Essex.

Franklin—Hon. Luther Bradish, Moira.

Fulton—James McIntyre. Johnstown.

Genesee—T. C. Peters, Darien; Lee Comstock, Le Roy.

Greene—George Griffing, jr. Cattskill; A. Marks, Durham.

Herkimer—A. Loomis, Little Falls; W. W. Mann, Frankfort.

Jefferson—Micah Sterling, Watertown, Edm'd Kirby, Brownville; Abner Baker, jr. Watertown.

Kings—John G. Bergen, Brooklyn; A. Bergen, Flatbush.

Lewis—Isaac Bostwick, Lowville.

Livingston—A. Ayrault, Geneseo; C. Metcalf, p. m. Geneseo.

Madison—Alex. Krumbhaar, Cazenovia; B. Enos, De Ruyter; S. B. Burchard, Hamilton.

Monroe—Rev. H. Colman, Rochester; Gen. R. Harmon, jr. Wheatland; Dr. Abel Baldwin, Clarkson.

Montgomery—T. J. Van Deveer, Amsterdam; G. Goertner, jr. Canajoharie.

New-York—C. H. Hall, Harlem; Sam'l Fleet, Jordan L. Mott, Isaac Adriance, Dr. R. T. Underhill, William Partridge, Rev. Jno. O. Choules, T. Dunlap, Gideon Freeborn, Abraham Bell, R. L. Allen, D. K. Minor, William A. Seely, New-York City.

Niagara—P. B. Forter, jr. Niagara Falls; William Parsons, Lockport.

Oneida—Benj. P. Johnson, Rome; Dr. T. Goodsell, Utica; Ira S. Hitchcock, Oneida Castle; H. Rhodes, South Trenton.

Onondaga—Willis Gaylord, Otisco; H. Baldwin, Syracuse; G. Geddes, Geddes; William Fuller, Skaneateles.

Ontario—John Greig, Canandaigua; R. C. Nicholas, Geneva; Myron Adams, Bloomfield.

Orange—A. J. Downing, Newburgh; Chas. Morrell, Goshen; Amos Brentnall, Canterbury.

Orleans—Cornelius Plocker, Kendall.

Oswego—Arvin Rice, Hannibal; E. W. Clarke, Oswego.

Otsego—Francis Rotch, Butternuts; S. Doubleday, Cooperstown; J. E. Cary, Cherry Valley.

Putnam—L. D. Clift, Somers.

Queens—Effingham Lawrence, Flushing.

Rensselaer—J. J. Viele, Lansingburgh; L. C. Ball, Hoosick Falls; J. C. Mather, Scaghticoke.

Richmond—Dr. Samuel Ackerly, Richmond.

Rockland—Edward De Noyelles, Haverstraw.

Saratoga—J. H. Beach, Saratoga Spa; H. Rogers, Fort Edward.

Schenectady—D. D. Campbell, Schenectady.

Schoharie—Wm. C. Bouck, Fultonham; Hon. J. Westover, Richmondville.

Seneca—A. B. Dunlap, Ovid.

Steuben—Z. A. Leland, Bath; O. F. Marshall, Wheeler; Stephen Arnold, Tyrone.

St. Lawrence—Henry Van Rensselaer, Ogdensburgh; Zenas Clark, Potsdam; Josiah Sandford, Stockholm.

Suffolk—B. Hunting Foster, Southampton, W. J. Wood, p. m., Huntington.

Sullivan—Charles Broom, Fallsburgh.

Tioga—Charles F. Johnson, Owego.

Tompkins—L. A. Morrell, Lake Ridge; Ezra Cornell, Ithaca.

Ulster—J. E. Hornbeck, Accord; Jas. Sherman, Milton.

Warren—Lewis Numan, Glenns Falls.

Washington—John Crary, Salem; E. Long, Cambridge.

Wayne—Dr. C. S. Button, Newark; E. Price, p. m. Lyons.

Westchester—W. H Morris, West Farms; Governeur Morris, Harlem.

Wyoming—J. Horsfield, Perry; Sam'l Howard, Perry Centre.

Yates—Jared Patchen, Benton Centre.

VIEWING COMMITTEES.

The Board next proceeded to the selection of Judges to award the Prizes at the Exhibition and Fair to be held in September, and made the following appointments:

ON BULLS, CLASSES 1, 2, 3 and 4—Felix Renick, Chilicothe, O.; J. Barney, Port Penn, Del.; Adam Ferguson, Watertown, U. C.; Thos. Husten, Circleville, O.; C. M. Giddings, Cleveland, O.

ON COWS, &c. CLASSES 5, 6, 7 and 8—Henry Clay, jr. Lexington, Ky.; William Neff, Cincinnati, O.; Sam'l D. Martin, Colbyville, Ky.; William Fitzhugh, Hagerstown, Md.; D. K. Townsend, New Haven, Ct.

ON GRADE CATTLE, CLASSES 9, 10 and 11— ——— Neilson, New Brunswick, N. J.; G. V. Sackett, Seneca Falls; William Garbutt, Wheatland; Thomas Hollis, Gilbertsville; Charles Godfrey, Geneva.

ON CATTLE, NATIVE BREEDS, CLASSES 12, 13, 14 and 15—Sam'l Jacques, Charlestown, Mass.; Geo. Griffing, jr. Catskill; Governeur Morris, Harlem; Tyler Fountain, Peekskill; Henry Burrell, Salisbury.

ON WORKING OXEN AND STEERS—Robert Colt, Pittsfield, Mass.; Allen Ayrault, Geneseo; William Fuller, Skaneateles; Joseph Haswell, Hoosick 4 Corners; George McKie, Cambridge.

ON FAT CATTLE AND FAT SHEEP—P. Reybold, St. Georges, Del.; Edward Tonkin, Clarksville, N. J.; ——— Wheeler, New-York; T. Kirkpatrick, Albany; B. D. Noxon Syracuse.

ON HORSES—John C. Stevens, New-York; J. M. Sherwood, Auburn; W. T. Porter, New-York; Edward Harris, Moorestown, N. J.; L. C. Ball, Hoosick Falls.

ON SWINE—William Lincoln, Worcester, Mass.; William B. Ludlow, Hudson; William Parsons, Lockport; John E. Brown, Brownsville; Ezra Cornell, Ithaca.

ON SHEEP, CLASS 1—Francis Rotch, Butternutts; E. C. Delevan, Ballston; D. D. Campbell, Schenectady; Effingham Lawrence, Flushing; Bailey Montross, Fishkill.

ON SHEEP, CLASS 2—A. B. Allen, Buffalo; Z. A. Leland, Bath; Enoch Marks, Navarino; R. S. Musson, Gilbertsville; D. S. Curtis, Canaan Centre.

ON SHEEP, CLASS 3—J. P. Beekman, Kinderhook; Edward A. LeRoy, Avon; L. A. Morrell, Lake Ridge; Thomas L. Davis, Poughkeepsie; Edward Long, Fuskirk's Bridge.

ON PLOWS—Henry Colman, Rochester; Henry Burdon, Troy; Anthony Van Bergen, Coxsackie; J. B. Nott, Guilderland; J. S. Gould, Stockport.

ON THRESHING MACHINES, FANNING MILLS, STRAW CUTTERS, AND HORSE RAKES—C. N. Bement, Albany; L. B. Langworthy, Rochester; W. A. S. North, Duanesburgh; Orville Hungerford, Watertown; George Geddes, Geddes.

ON HARROWS, CULTIVATORS, DRILL BARROWS, AND ANY OTHER AGRICULTURAL IMPLEMENTS, NOT ENUMERATED—George W. Patterson, Mayville; Thomas Hillhouse, Albany; Rawson Harmon, jr Wheatland; John B. Dill, Auburn; J. Horsfield, Perry.

ON SILK, SILK REELS, &c.—H. S Randall, Cortland Village R. C. Nicholas, Geneva; Samuel Ackerly, Richmond; A. Gridley, Auburn; G. V. Sackett, Seneca Falls.

ON BUTTER—Benj. P. Johnson, Rome; Micah Sterling, Watertown; Robert Deniston, Salisbury Mills; ——— Delmonico, New-York; William Van Wyck, Fishkill.

ON CHEESE—H. Baldwin, Syracuse; Edward Perry, New-York! Henry Holmes, Greenwich; Wilber Sherman, Lansingburgh; T. C. Peters, Darien.

ON VEGETABLES—T. Bridgeman, New-York; James Wilson, Albany; ——— Colman, New-York; M. B. Bateham, Rochester; Dennis Belden, Troy.

ON FRUITS—A. J. Downing, Newburgh; James Powers, Catskill; J. J. Thomas, Macedon; R. S. Underhill, New-York; Alden Spooner, Brooklyn.

ON FLOWERS—Alexander Walsh, Lansingburgh; Rev. J. O. Choules, New-York; Prof. J. W. Jackson, Schenectady; A. P. Heartt, Troy; T. Dunlap, New-York.

ON DOMESTIC MANUFACTURES—L. F. Allen, Buffalo; A. L. Linn, Schenectady; Oliver Wiswall, Hudson; T. Dunn, Albany; Amos Briggs, Scaghticoke.

ON MAPLE SUGAR—L. Fronk, Coxsackie; J. C. Mather, Scaghticoke; Myron Adams, East Bloomfield; P. N. Rust, Syracuse; Arvin Rice, Hannibal.

ON HORTICULTURAL IMPLEMENTS AND GARDEN ORNAMENTS—E. P. Prentice, Albany; S. S. Fowler, Greenbush; John Townsend, Albany; E. Holbrook, Hyde Park; Oliver Phelps, Canandaigua.

ON DISCRETIONARY PREMIUMS ON ARTICLES NOT ENUMERATED—J. J. Viele, Lansingburgh; J. B. Duane, Schenectady; William Partridge, New-York; Samuel Williams, Waterloo; W. A. McCulloch, Greenbush.

On motion, it was *Resolved*, That the Mechanics and Manufacturers of this state be invited to send specimens of their manufactures to the Fair of the State Agricultural Society, and that suitable arrangements be made for their exhibition, under the direction of a committee to be appointed by themselves.

Resolved, That Farmers and Gardeners generally, be particularly requested to send in for exhibition, such samples of the products of their farms, gardens, and orchards as they may deem worthy of special notice.

☞ The next meeting of the Executive Committee is to be held at the office of "The Cultivator," on the 2d Wednesday of July, (the 13th,) at 10 o'clock, A. M.

SWEEPSTAKES—TWO YEARS OLD BULLS.

A gentlemen of Connecticutt, requests us to say that he will show a two years old bull, at the Fair of the N. Y. State Ag. Society, to be held in this city in Sept. next, for a sweepstakes of $25 entrance, provided three others shall be entered, so as to make a purse of $100. On mentioning this proposition to a friend, he directed us to enter his name as one of the subscribers. Any other gentlemen disposed to become subscribers to this, or to propose sweepstakes for any other animals, will please give notice to the Editors of the Cultivator, that their propositions may be timely noticed.

WOOL, AND ITS MANUFACTURE.

ONE of the best papers we have seen on this important subject, is given in a late number of the Western Farmer, from the pen of Mr. Snow of Detroit. He has condensed from McCulloch's Commercial Dictionary, and other sources, much valuable information, the more necessary at this time, as the subject is undergoing investigation in our national legislature, and should be understood by the people. We have abridged Mr. Snow's paper, and added a few facts.

From the earliest settlement of this country, the settled policy of Great Britain was to prevent all manufactures. In 1699, Parliament declared, "*that the erecting manufactories in the colonies of America, tended to lessen their dependence on Great Britain.*" In 1719, the increase of the domestic manufacture of woolens excited the attention of the parent country, and a law was passed, "*that no wool, yarn, or woolen manufactures of their American plantations, should be shipped there, or even laden, in order to be transported from thence to any place whatever.*" In 1732, a report was made by a committee in Parliament, stating that in New England, New-York, Connecticut, Rhode Island, Pennsylvania, and Maryland, they were taking to the manufacture of woolens, and recommending that "*an early stop be put to their progress.*" In 1734, complaints were made in England, that the colonists made their own woolen hats; the Governor of Massachusetts was written to, and he stated that the citizens were exporting large quantities of their hats to Spain, Portugal, and the West Indies. A law was immediately enacted in which the exportation of hats was forbidden under severe penalties; no person was allowed to make hats unless he had served an apprenticeship of seven years, and no man was allowed to have more than two apprentices at a time.

Up to the year 1790, there was no woolen factory in this country. In that year, one was put in operation at Hartford, Ct., "and President Washington delivered his Inaugural address to Congress, in a suit of broadcloth from this factory." Mr. Snow traces the course of British legislation on this subject, from the war of the revolution, to that of 1812, which found us destitute of the means of clothing our armies, of providing them with blankets, and at once forced wool up to from two to three dollars per lb., and broadcloths from $10 to $18 per yard. In the first eighteen months after the peace, woolen goods to the amount of $17,000,000, were thrown into the United States, and Lord Brougham said in Parliament, "that it was worth while to incur a loss upon the first exportations, in order, by the glut, to *stifle in the cradle*, those young manufactories in the United States, which the war had *forced into existence.*"

From the period of the last war, the woolen manufacture and wool business of this country has been continually, but gradually increasing in magnitude. In 1830, the number of sheep in the country was 14,000,000. The present number exceeds 20,000,000, and the clip fifty millions of lbs. The following table will show the capital at present engaged in growing wool in the U. States:

20 millions of sheep, at $2,.....	$40,000,000
7 million of acres of land for pasture and hay,	70,000,000
Care of sheep, clipping of wool and transp'tn,	10,000,000
Total invested in wool growing,.....	$120,000,000

In 1840, there was imported into the U. States, principally from the Mediterranean and Germany, eight and a half millions lbs. of wool.

In 1830, both McCulloch and Marshall, estimate the number of sheep in Great Britain at 32,000,000. Average yield per head 5 lbs., making 160 millions of lbs. The same year about 30 millions of lbs. were imported, making the consumption for that year, about 190 millions of lbs. In Great Britain the number of sheep is about two to each person; in France and Prussia, the number is about equal to the inhabitants; in the United States, about one and one-sixth to each inhabitant. It appears that the consumption of wool in the countries named, is as follows:

In England in 1830,.....	190,000,000
In France in 1834,.....	116,000,000
In the U. States, in 1840,.....	59,000,000

According to the census, the number of persons engaged in the woolen manufactories is 21,311; those employed in domestic woolen manufactures, 30,000. As these cannot on an average have less than three persons depending on each one for support, the number supported by the woolen manufactures equals 200,000: and at least one million in the agricultural class are interested in the growing of wool.

"Here then the farmer has a home market of two hundred thousand, to supply with his surplus products. Each will consume weekly of beef, pork, flour, butter, cheese, milk, eggs, wood, &c., at least 50 cents, which gives $100,000 a week, or *five millions two hundred thousand dollars a year*; a larger sum than one half the agricultural exports of the U. States to all foreign countries, have averaged for the last five years, (excepting cotton,) as the treasury reports fully prove." This question of home consumption is of vast importance to the farmer; and as a matter of fact, is worth all the abstractions and theories ever engendered.

British economists estimate the consumption of woolen and cotton goods annually in Great Britain, at $10 per head, for the population. There can be no doubt that the people of this country are as well clothed and fed as those of Great Britain; and this would give $170,000,000 for this country, at $10 per head, and at least one half of this is woolens, or 85 millions. Such statistics and facts prove that the woolen interest is one that cannot be lightly sacrificed; interwoven as it is with the prosperity of both farmer and manufacturer.

HARVESTING GRAIN.

MILLERS have long been aware, and farmers have generally admitted that wheat or other grain cut a few days before it is perfectly ripened, will make more and better flour than if suffered to stand too long before harvesting. There seems to be enough of the developed juices in the stem and ear to perfect the filling of the kernel, while the envelope or bran does not become as thick, dark, and hard, as when the cutting is too long delayed. Grain that is lodged or struck by the rust or mildew, should always be cut with the least possible delay, as in the first case the straw becomes worthless while the kernel will not improve; and in the last instance, the longer it stands the more rapid and extensive will be the deterioration of both the straw and the grain. Cutting prevents the accumulation of more of the juices in the straw, where the already ruptured vessels and cuticle prove they are not wanted, and the appropriation of those that remain will be carried on by the kernel, until the stem is dried. Grain cut before it is fully ripe, threshes with more difficulty than that which stands till fully matured, but since the general introduction of machines, this objection has not the weight that formerly belonged to it. There are various ways of putting up the sheaves of wheat in the field to cure, before they go to the stack or barn. Some put six together, pressing their heads into as small a space as can be, and then capping them with a seventh; some put a dozen sheaves together by twos, and cover the tops with two sheaves placed butts together in the centre; but unless it is necessary the grain should stand a long time before carting, as good a way as any, perhaps, is to set up the sheaves by twos, merely leaning them gently against each other, and without any capping at all. This system is practiced by our most extensive wheat growers, and while it requires less labor than any other mode of setting up, is found to occasion as little loss, and give full as much security to the grain, as any that can be used. When, however, it is necessary that grain should stand several weeks in the field, it should as soon as dry be put up in small stacks of six or eight shocks each, and well capped and secured against rain.

"CHARCOAL AS A MANURE."

WE wish to call attention to a paper under this title in the Transactions of the N. Y. State Agricultural Society, furnished by J. H. Hepburn, Esq. of Lycoming, Pa. The facts there stated, agreeing as they do with what every one must have witnessed to a greater or less degree, should secure for charcoal as a manure, a greater degree of consideration than it has yet received. As it is probable some of our readers may not meet with the "Transactions," we shall condense some of his statements for the benefit of such.

"During the last autumn, business called me into Harford Co. Maryland. While there, I was surprised at the exceedingly luxuriant growth of a crop of grain, but lately seeded into a field on Deer creek, and also at the peculiar appearance of the soil. The soil upon which the grain was growing, had a remarkably dark appearance, and appeared to be so mellow and friable as nearly to bury the foot at every step. * * I inquired if the field had not been covered with charcoal, and was told that it had been. I inquired when it was done, and was told that it had been spread upon it more than *twenty years ago!* I then asked what was the general quality of the crops raised upon it, and was told they were invariably fine, both as to quantity and quality." Mr. Hepburn gives, among other experiments, one made by a gentleman in the iron business. "He had a large quantity of coal that had become too fine to be used in his furnace, and not knowing what to do with it, concluded as the easiest way to dispose of it, to haul it out, and spread it on his grass land. He spread it late in the fall, and for many years, he informed me he observed the most astonishing effect produced upon his yield of grass. The quantity was nearly doubled, and the good effect continued as long as he owned the property, which was at least ten years." Mr. Hepburn also states the important fact, that "wherever charcoal has been applied, *rust never affects the growing crop of wheat.*"

Every coal burner is aware that a vigorous and healthy vegetation always surrounds the old hearths, or coal beds, as the place where the coal has been burned is called. We have known a blacksmith who made his own coal, that always used the hearth for an onion bed, and his uniform success justified the use to which he appropriated those places. In another instance a farmer who was remarkable for his gardening operations, told us that his practice was to make his garden beds for his onions, carrots, &c., and then spread over them a layer of straw some ten or twelve inches in thickness, which was burnt on the ground. The charcoal and ashes made by this dressing was slightly raked in, and then the seeds sown. In this way, his crop never failed.

Mr. Hepburn remarks that he shall not attempt to explain the chemical action or affinities which impart such value to charcoal. We think the following quotation from Liebig, will exhibit one great cause of its efficiency. In speaking of the power of various substances to absorb ammonia from the atmosphere, he says:—"Powdered charcoal surpasses all other substances in the power which it possesses of condensing ammonia within its pores, particularly when it has been previously heated to redness. Charcoal absorbs 90 times its volume of ammoniacal gas, which may again be separated by simply moistening it with water." The experiments of Lucas given in the appendix to Liebeg, are also most striking proofs of the value of charcoal to vegetation, and the manner in which it operates. They show that plants thrive in powdered charcoal, and may be brought to blossom and bear fruit, if exposed to the influence of the rain and the atmosphere; a result almost impossible to obtain in any other simple substance, and which can only be owing to the facility with which powdered charcoal absorbs and gives out the gases, whether carbonic or ammoniacal. It is to this facility of absorption that charcoal owes its *sweetening* properties, as its effect on partially spoiled meat is termed.

As charcoal is almost indestructible, and its effects as a manure remain as long as it exists in the soil, it is possible that charcoal may be found one of the cheapest as well as most efficient manures for some crops, and on some soils. It appears evident from the manner of its action, that plants requiring the greatest supply of nitrogen would be the most benefited by its application, and hence its efficacy when given to wheat. It could produce little effect on extremely wet soils, as alternations of dryness, to allow the contact and condensation of the gases, and of moisture to render such absorption available, are necessary to give effect to charcoal. Charcoal has a physical, as well as a chemical effect on soils, decidedly useful. It renders them as far as it is present, light and friable; and gives additional warmth to them by its color, which absorbs and retains readily the rays of the sun during the day. It is not surprising that those preparations of night soil, in which powdered charcoal constitutes a large portion, should be found more effective and durable, than those in which its place is occupied by peat or even common mold.

THE TRUE DOCTRINE.

MEN may preach, or write, or talk about the respectability of this or that profession, but it will avail little or nothing, unless that profession is taught to respect itself, to understand its true position and its claims, and true means of enforcing them. No man of sense can deny that the profession of agriculture is one of the most honorable, useful, and indispensable: that it is the eldest of the arts, and should—other things being equal—entitle those who practice it to the front rank in society. To what then is it to be attributed that the farmer has been kept in the back ground, and what by courtesy have been called the learned professions, allowed to take the precedence in all public matters, even to the legislation on topics which interest the farmer almost exclusively, and which he does, and should understand better than any one else? This question we have never seen more satisfactorily answered than in an address delivered at Grenada, Miss., by A. C. Baine, Esq., before a meeting convened to devise the ways and means of building and endowing a college at that place, and for a copy of which we are indebted to the author. From this address we shall make a few extracts, confident the truths they contain will commend them to the readers of the Cultivator:

"I confess it is one of the most lamentable marks of the present and preceding ages, that it is deemed unnecessary to educate a man's son for a farmer. If one of a family is to be educated, he is not designed to till the soil; but is to be placed in a learned profession. Why is not tilling the earth a profession *as learned*, and as useful, and as honorable, as any on the globe? Because you degrade it. Every boy whom you educate, you instil into him the belief that he is above the calling of his father. You teach him that the cultivation of the earth is servile. But educate him for this great employment; talk to them of its usefulness and nobility while they are boys; and my word for it, the next generation will not have passed away until the profession of a planter will be a *learned profession*. And you will see the young, the generous, the talented, age and ambition, pressing into it with the same eagerness that they crowd what is at this day called the liberal professions. * * * It is one of the most astonishing, but tolerated errors, in the history of mankind, that it should be unnecessary to educate a farmer. Why the cultivation of the soil was the first employment of man! It is a condition of his existence, and requires a high order of mind to manage it successfully. And it is a fatal mistake that has degraded the mass of intellect for centuries, to suppose that a farmer need not be educated. It is essential; no man can fill that high station and dignity—that first office within the gift of his Maker—with honor to himself, benefit to his race, and glory to his God, without an education;—without some proficiency in the science of human happiness. He ought to be instructed in the physical sciences, and he ought to be able to analyze his soil, and tell you its composition; and the effect upon a given production, of the excess or absence of given constituents. He should be a good political economist. He should understand the law of production, consumption, of distribution, of supply and demand. Every man should deem his son *actually disqualified* for this noble employment, until he has at least learned this much."

Let such sentiments as are inculcated in this address, become prevalent at the south, and they will offer a sure guarantee against opinions which are most ruinous and destructive; against the idea that all labor is of necessity servile and degrading. Teach mankind that there is such a thing as honest industry, honorable and useful; that success in any pursuit, involves knowledge, research, thought, education, and you do much to abate prejudices, and smooth the way for further conquests and acquisi-

tions from the domains of error. Let it never be forgotten, however, that learning is not education, and that they are not always associated in the same individual. Learning only furnishes the means of education; it is not education itself. Gifted minds, close observers of men and things, are frequently among the best educated men, while their pretensions to learning are small. It is enough to name as examples of such, Benjamin Franklin, Roger Sherman, and Jesse Buel.

WORK FOR THE MONTH.

MUCH hard work must be done by the farmer in July, and his physical system must be attended to accordingly. The man of retirement, the student, and the man who has no active employment, does not require that substantial food which he who swings the axe, or the scythe, must have, or sink under protracted labor. To the farmer we say then, live well; if there is a man who is entitled to such living, you are the one; but make no attempts to "live high." Abundance of plain, substantial, nutritive food, is the food for the farmer; the high seasoned appetite-and-fever-provoking viands, are not for him. Good food is the natural stimulus of the physical powers, and the man who regards his own happiness, or the welfare of society, will think twice before he desires any other. The farmer who carries rum into his fields, is little better than a suicide, for he is needlessly laying in himself, and perhaps in those he employs, the foundation of a habit that may carry him to the drunkard's grave. Men who sweat profusely, must have drink; but that drink should not be alcohol. Water, pure water, is the best drink extant; but if there are any with whom it does not agree, then let them use milk, or molasses and ginger, or the Scotch drink of oat meal and water, which has been so highly approved by those who have tried it in this country, or the home brewed beer of the "gude wife;" in short, any thing that will not foster the accursed spirit of intemperance, which has so long threatened the destruction of every thing that makes life valuable. But be not intemperate in the use of even cold water. Don't go to the pump, or the "old oaken bucket," while hot from exertion, and drink enough to founder a horse, at the outset. Wash your hands and your face, before drinking; then take a drink, and then time to breathe freely, before you drink again. Half a gallon of water at 50°, thrown at once into the stomach of a man heated to 110°, will produce a revulsion fatal to life, and the prudent man will carefully avoid all such dangerous excesses.

HAYMAKING is one of the most important farming operations for July. This is rendered indispensable by the severity of our winters; as on the quantity and quality of the hay made, the health and safety of our flocks and herds is depending. Too many farmers begin haying before they are ready. They have not examined and put in order their implements. Their scythes, forks, rakes, hay racks, are some in one place and some in another; and when wanted, some will come up requiring a thorough repair, or perhaps be found missing in toto. Don't begin then to make hay till you are ready, even if the sun shines. If your hay is to be made of timothy or herds grass, let it stand until the seeds in the earliest heads are sufficiently matured to grow: if it is principally clover, as is the case on most farms where wheat is the main crop attended to, it should be cut when the heads of perhaps one-half are turning brown. If clover is allowed to stand too long, the heads and the leaves fall off in curing, and the value of the hay is much lessened. All grass should be cut in the morning, and it will cut easier if the operation is performed while the dew is on. When the dew is dried off, and the swaths wilted on the surface, the grass should be shaken out evenly, and lie until the afternoon; when it should be raked into winrows, or if the weather appears unfavorable, it should be put up in cocks for the night. The raking and putting up should be done before the dew falls. If the grass is clover, the best method of treating it we have ever tried, is to let it wilt during the day, and towards night put it up with *forks* into cocks made high in proportion to their base, and in these let it remain until nearly cured. If put up as it should be, the air will circulate through these heaps of clover, and they will require no opening, until the final opening and drying for the barn. If bad weather occurs, the clover may require opening and drying, and putting up again; but if put up in the way recommended, we have rarely found it to suffer in any weather. Clover hay made in this way is best, as it is handled but little, and is not subjected to a loss of leaves and heads in consequence. We have found it to be an excellent plan, when mowing or stacking hay, especially if there is the slightest apprehension about the curing, to sprinkle on salt occasionally, as the hay is laid on. Cattle will eat hay so salted with avidity, and they will be certain of a little salt at a time when they need it the most, and when too, they are in this respect, most frequently overlooked. In stacking hay, farmers in general err much in not paying sufficient attention to its being properly put up. It is frequently so slovenly done, that no inconsiderable part of a stack is moldy, and lost for every purpose except manure. Hay or grain may be put up in stacks, when there is not barn room, and be as well saved, as if under cover; but it cannot be done without some skill, and some pains, and many of our American farmers would do well to take lessons from their English brethren in this respect.

INDIAN CORN demands much of the farmer's care and attention during this month, as on its growth now, the future crop is depending. Keep the corn free from weeds, stir the surface often, thin the corn in the hills, and with a good soil, you can scarcely fail of a crop. Some farmers hill up their corn so extravagantly, that it looks as if planted on the summit of ridges. This is a bad practice in any season, and in dry ones is most injurious. Attention to the structure of the corn plant, and the manner in which its roots, particularly the upper or brace roots are thrown off, would convince any one that the practice of hilling is not demanded by any thing in the nature of the plant, and that unless the condition of the soil is such as to require it, hilling should never be attempted. It sometimes happens that after the usual dressings have been given to corn, and it is laid by for the season, a rank growth of weeds will spring up, owing perhaps to the corn not fully occupying and shading the ground, and these are allowed, most injudiciously, to stand and perfect their seeds. The farmer who goes over his corn for the sole purpose of cutting down these weeds, instead of allowing them to encroach on his corn and ripen their seeds to plague him hereafter, will find the labor has been well applied, and the increased crop will amply reward him.

Every farmer should make calculations to raise some of the common or ENGLISH TURNEP. For the table they are unequaled, are cultivated with great ease, and while they remain in good condition, are excellent food for sheep, cattle, &c. The soil best adapted to the turnep, is one abounding in vegetable mold, and hence newly cleared lands are found to produce the best roots. Such soils too, are exempt from worms which are apt to infest long tilled or highly manured lands. When we have not had such a piece of land at command, we have generally succeeded in getting good turneps, by turning over in July, a piece of clean rich turf, rolling it smooth, and then harrowing until sufficient loose earth for a seed bed was provided. There is so much danger of over-seeding in sowing turneps, that an old saw recommends to the farmer when going to sow turneps, to leave his seed at home. If too thick there can be no crop, and thinning, a work of considerable labor, must be adopted. Where such a small quantity of seed only can be used, it can rarely be distributed equally; and hence it has been found a good practice to mix the seed with sand or ashes for sowing, as that permits a more equal deposit of the seed. A very fine light harrow should be used for covering the seeds; and where such a one cannot be had, brushing them in may be practiced. One thing must not be forgotten, and that is, unless your lands are *clean*, it is idle to expect a crop of turneps. Much benefit has been derived to the young turnep plant, particularly if attacked by the fly, by spreading, or rather sowing ashes, pretty liberally over the field.

Some have strongly recommended the cutting of the Canada thistle in the last of the July moon, as an effectual cure for this weed. Now though we have no faith whatever, in the influence of the moon in the matter, yet as the plant must have reached that period of its growth approaching to maturity, it is evident the roots must be more exhausted than at any other period of their growth, and hence when cut at this time will be less likely to recover from the injury cutting produces. In any event, cutting can do no harm; and the farmer who at any time allows the thistle to ripen its seed on his farm, is doing not only himself, but others, a serious injury. We have known many farmers allow their thistles to stand as long as they could without danger of their shedding their seeds, and then cut them. In this way, little or no benefit, so far as the seed is concerned, is derived from the cutting, as the juices of the plant will mature the seed, and they will be scattered by the down almost as widely as ever. When allowed to stand so long, they should, when cut, and dried, be raked into piles and burned; and we may add, that another kindred pest of the farmer, Johnswort, should be cut and treated in the same way.

We wish that some of our farmers would try the experiment of sowing some corn broadcast for fodder. Some experiments that have been made, seem to show that this would be one of the easiest methods of making winter fodder known; and it would certainly be a kind of food highly relished, and very nutritious to all animals. The trials made, indicated that from eight to ten tons of food could be grown on an acre. From two and a half to three bushels of corn may be sown per acre; but there can be little hope of success, unless the soil is clean and rich.

HESSIAN FLY.

AN able contributor to the S. C. Temperance Advocate and Ag. Register, in a paper on the advantages, of preparing wheat for seed, says that soaking it in a strong solution of blue stone, 10 or 15 hours, and then drying it with lime, is the surest preventive of the Hessian fly, he has tried or known. As a proof that the egg is deposited in the grain, he says: "It is enough for me to know that I have extracted from the wheat in four weeks after it had been sown, from one to four semi-transparent destructors, (I should call them,) within the sixteenth of an inch of the grain, when there was but one leaf to the wheat, and when the grain had not even lost its shape or its envelope. The blades thus affected were yellow, and ultimately died. In fact, that year, I hardly made a grain of wheat from the original stalk; what matured, came from the suckers. I have seen the fly, or *Destructor*, at various stages, and my whole experience goes to confirm what I learned from the old Pennsylvania farmers forty years ago, that the egg was deposited in the grain. And since an experiment on the grain prevents the fly, I consider that sufficient evidence for me."

BRITISH CORN LAWS.

So long as the commercial and agricultural relations of the United States and Great Britain remain as they now are; so long as the prices of our most important agricultural products are in a great measure depending on England; so long as British legislation for her farming interest makes itself felt in this country to the remotest hamlet beyond the Mississippi, so long will the regulations of that country possess an interest for every American cultivator of the soil. Perhaps there never has been a system devised which so effectually and clearly defines the line between plenty on the one hand, and starvation on the other, as the British corn laws; and if the journals of that empire are entitled to the least credit, it unfortunately happens that for no inconsiderable part of the time a large portion of the population are on the starvation side of the line. To understand the excuse for this state of things, it must be remembered that the immense taxes of England, including the government, church, and poor rates, are mostly paid by the land, and consequently come from the farmers; not those who own the land, but those who hire and work it; and these could not meet the enormous demands made upon them, were not the sale of all their produce secured to them at rates which inevitably bring distress, and in times when trade is unfavorable, starvation to those who depend for bread on their daily or weekly earnings. It is evident that any modification or repeal of the corn laws, which should admit the grain of the United States, or Germany, into England, except at heavy rates, would disable the farmers from paying their rents to their aristocratic landlords, their taxes to the church and the state, and compel the noble land owners and the government to measures of retrenchment, or see their lands go uncultivated. Under these circumstances, it cannot be considered probable, that any radical or indeed important changes in the corn laws will take place, certainly not under the present ministry. The deep public feeling on the subject, however, the half suppressed howl of despair that comes up from starving millions, has forced on the government the necessity of doing something to divert and palliate, if not to relieve the public distress. In this light only, can the measure lately proposed by Sir Robert Peel, as a substitute for the former law, be considered. To show this, we here give the proposed rate of duties, as well as the present; and we do this the more readily, as the matter does not appear to be understood by many of those in this country who are the most interested, that is, the grain growers. The table will also show the encouragement offered to colonial products; a subject of some interest to us, situated as our whole northern frontier is with regard to the Canadas.

Whenever the average price of wheat, made up weekly from the reports according to law, and published as required, shall be for every quarter of eight bushels, as marked in the two first columns, then the duty will be as shown in the proposed and present scales.

Average.			Colonial Wheat.	Peel's Proposed scale.	Present Scale.
Under 51s.			....	20s. 6d.	26s. 8d.
51 and under	52		....	19	25 8
52 "	53		....	18	34 8
53 "	54		....	18	33 8
54 "	55		8s.	18	32 8
55 "	56		4	17	31 8
56 "	57		3	16	30 8
57 "	58		2	15	29 8
58 "	59		1	14	28 8
59 "	60		....	13	27 8
60 "	61		....	12	26 8
61 "	62		....	11	25 8
62 "	63		....	10	24 8
63 "	64		....	9	23 8
64 "	65		....	8	22 8
65 "	66		....	7	21 8
66 "	67		....	6	20 8
67 "	68		....	6	18 8
68 "	69		....	6	16 8
69 "	70		....	5	13 8
70 "	71		....	4	0 8
71 "	72		....	3	6 8
72 "	73		....	2	2 8
73 and upwards,			....	1	1

The new scale, should it be eventually adopted, would doubtless slightly effect the prices of American wheat, but not materially, since it is clear that when wheat is under 51s. at Liverpool, we could not afford to export to any extent, as prices here, which would render such rates profitable to the exporter, would be ruinous to the grower or the farmer. The principal effect of the proposed scale, will be to cause American wheat to pass *into* Canada, from whence it will be exported as colonial, at duties merely nominal, as will be seen by the table. This is to a very great extent the case under the existing scale; and letters from all the ports on the lakes, speak of the extensive purchases of wheat already made for the Canada or St. Lawrence market, either with specie or eastern funds. So alarmed have the farmers of Canada become with regard to this increasing influx of American wheat, and so urgent have been their representations to Parliament, that Mr. Gladstone has introduced a bill laying a duty of some nine or ten cents per bushel, on all grain introduced into Canada from the U. States.

The English press, or that part of it controled by the landed interest, and particularly the agricultural journals, are bitter against the proposed modification. The New Farmer's Journal, and the Mark Lane Express, denounce the proposed change in no very measured terms; and it is every day becoming more and more apparent that no change affording relief and bread to the multitude, can take effect, until the masses, in tones that cannot be mistaken, demand it. Things cannot remain long as they are. John Bull is proverbially patient and forbearing,

when old habits and ancient abuses are concerned, but there is a point beyond which even an Englishman cannot submit; in starvation, old prejudices and preferences find a powerful opponent; and the truth which should be every where recognized, that the man who labors should have the *first* benefit of his labor, will gradually make itself felt all over the world. This is the point to which all things in the old world are tending, peaceably if they can, forcibly if they must.

IMPORTATION OF WOOL.

We make the following extracts from a late number of the Boston Cultivator, and invite for them the attention of our readers. Every one is aware that wool, costing less than 8 cents per pound, is admitted free of duty; as it was supposed that none but the coarse Smyrna or Buenos Ayres wools, which would come in competition with none grown in this country, could be procured at those rates. Such, however, it seems is not the fact; but that grades of wool, which directly compete with a large proportion of our wool, ranging from middling to fine, are imported to a great extent, and at prices which exempt it from duty. Of this duty-free wool, the importation annually is from ten to fifteen millions of pounds, and is constantly increasing. The number of sheep in the United States may be estimated at 20 millions, and the clip of wool at 50 millions, about equal to the wants of the country. There is a vast capital engaged in this production of wool by the farmer, and the prices seem to have reached the lowest point compatible with the business, and further reduction would be destruction. We think farmers have a right to ask that in the mutual adjustment of the claims of the various interests of the country, one so vitally important to its interests, and their prosperity, shall not be overlooked. The editor of the paper named, says:

"We have now before us on our table, six kinds of wool imported duty free from South America, furnished us as samples by one of the largest importers in the United States, which actually cost in South America, from 3½ to less than 8 cents per lb., and therefore all admitted duty free.

"The first kind is a long coarse wool about 7 inches in length, about as fine as wool of our coarse long wool sheep, such as is manufactured into coarse blankets, carpets, worsted, and coarse cloths. This sample is very white and clean, and may be afforded for 12½ to 16 cents per pound.

"The second is a coarse wool of a finer grade, fully equal to the wool of our best old fashioned common sheep, and is adapted for middle satinetts, coarse woolens and common blankets. 1,200 bales of this wool were imported into Boston in one week, duty free. If sold at one shilling per pound, it would afford the importer over 100 per cent profit. This wool, by comparison, is equal to some taken from a half blood Dishley ewe, and cleanses white and fine.

"The third is full as good as our half blood merino wool, and may be cleaned, as the importer said, at an expense of from 1½ to 2 cents per lb. This wool is fit for the second grade of broadcloths, cassimeres, flannels, and the first class of satinetts, and may be imported so that it shall not cost the manufacturer, when perfectly cleaned, twenty cents per lb.

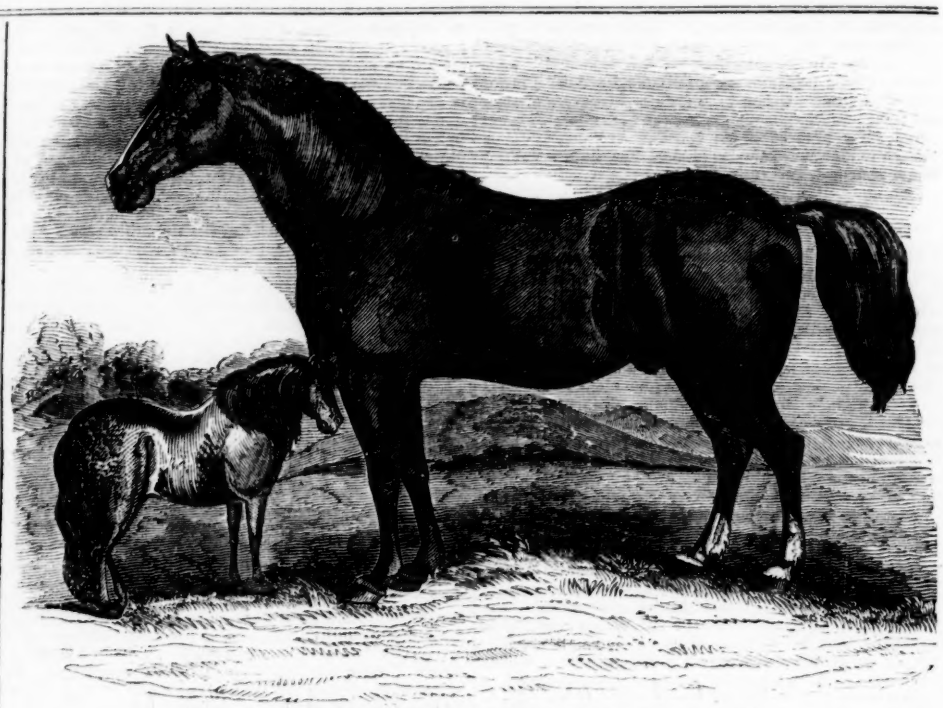
"The fourth, is of the same grade, full of burrs and dirt; may be cleaned for two cents per lb., and may be purchased abroad at the lowest rate above stated, or 3½ cents per lb.

"The fifth, is a sample of wool about the same grade as the two former, short and fine, cleansed in South America, very white and clean. We were much surprised when the importer assured us that this wool cost in South America, positively less than 8 cents per lb., and was imported duty free.

"The sixth, is very similar to pure merino wool, and the sample which we have washed in hot soap suds, is beautifully white and clean. When compared with some wool from the Hon. Isaac C. Bates' flock, we were unable to decide which was the finest, and so we called in a third person, who declared Mr. Bates' a little the finest, but the difference was trifling. This wool being uncleaned, cost less than 8 cents, and was imported duty free; while the cloths manufactured from such wool, by the compromise act have been protected by a duty ranging from 50 to 21½ per cent, down to June, 1842."

IMPROVEMENT IN THE QUALITY OF WHEAT.

Col. LeCouteur, the most skillful grower and improver of wheat in England, in some tables lately published in one of the English periodicals, has given the results of some of his long continued experiments in improving wheat by crossings and selections. By continuing to select and propagate only those varieties that gave the most and best flour with the least bran, he now obtains over 2400 pounds of superfine flour to the acre, and so thin is the skin of his best wheats that from an acre of 52 bushels, only 542 lbs. of bran, middlings, and shorts were given. One hundred pounds of this flour, as repeated and careful experiments have proved, will make from six to twelve per cent more bread, of the first quality, than the same quantity of the best common market flour. The beauty, purity, and weight, of some of the specimens sent by the Colonel to the Fair of the Royal Ag. Society, surprised all who noticed the samples, and most strikingly proved the improvement that skill and perseverance can effect in the most common cultivated plants.



THE CLYDESDALE HORSE AND ZETLAND PONY.—(Fig. 66.)

We copy the above portraits from the 10th part of Prof. Low's "Illustrations of the Domestic Animals of the British Islands," in which we find the following account of the Clydesdale breed of Horses:

"The Horses of Scotland employed in labor, pass by gradations from the smaller varieties of the mountainous districts to the larger breeds of the plains and cultivated country. It is in the Lowlands that those adapted for the heavier labors, and properly termed Draft Horses, are reared. Although varying in size, form, and properties, in different districts, they have been gradually approaching, with the increased means of general intercourse, to a greater uniformity of characters. The part of Scotland which had early become the most distinguished for the production of the larger horses for draft, was the county of Lanark, otherwise termed Clydesdale. This district, intersected in its whole extent by the river Clyde, comprehends a large portion of that vast field of coal to which Scotland owes its existence as a manufacturing country, and contains within its bounds the city of Glasgow, which, from a secondary town, has become, within the period of less than a century, one of the most rich and populous cities of the empire. The rapid and continuous increase of this great manufacturing city, and the prodigious land-carriage in the rich mining district connected with it, created a demand for horses of superior strength and size for the purposes of draft. The kind of carriage employed for the transport of minerals and all kinds of goods, being the single horse-cart, the Horses required were those which should combine with weight of body a considerable degree of muscular activity. Those of the district have become, in an eminent degree, adapted to the conditions required, and being intermixed in blood, and formed on a common model, a breed has been produced with well defined characters. It is termed the Clydesdale Breed, because the individuals are mainly derived from that district.

"The Clydesdale breed of Horses has a manifest affinity with the Black Horse of Holland and the Netherlands; and universal tradition refers to an importation, at an early period, of a number of Flanders stallions to the neighborhood of Hamilton, by one of the Dukes of that name. It may likewise be believed, that horses from different sources have been from time to time introduced into the popoulous mining and manufacturing district of this part of Scotland, and that thus the breed of Clydesdale is really of very mixed lineage, although its distinctive characters have been communicated to it by the blood of the Black Horse.

"The Clydesdale breed of Horses, as it now exists, is of the larger class, the ordinary stature of the individuals being sixteen hands. Their prevailing color is black, but the brown or bay is common, and is continually gaining upon the other, and the grey not unfrequently manifests itself, although the parents should have been dark. They are longer in the body than the English Black Horse, and less weighty, compact, and muscular; but they step out more freely, and have a more useful action for ordinary labor. They draw steadily, and are usually free from vice. The long stride characteristic of the breed is partly the result of conformation, and partly of habit and training; but, however produced, it adds greatly to the usefulness of the horses, both on the road and in the fields. No such loads are known to be drawn at the same pace by any horses in the kingdom, as in the single horse carts of carriers and others in the west of Scotland; and in the labor of the fields, these horses are found to combine activity with the physical strength required for draft.

"The horses of this breed are now reared all over the counties of Renfrew, Ayr, and Dumfries, but they are still produced in the greatest numbers in Lanarkshire. They have fair justice rendered to them when young, by their being allowed their natural exercise over a large range of pasturage, until the age at which they are taken up for work. Although not pampered, the mares, when in foal, are kept in good order, by means of turneps, potatoes, and similar food. The only kind of horses, too, reared by the farmers, being those of the native stock, there is no mixture of breeds, and little employment of those half-bred mares which are common in other breeding districts. On the other hand the rearing of draft horses being more a part of the regular routine of the farm than elsewhere, the farmers are usually satisfied to obtain a fair average stock, without seeking to produce horses of superior figure and higher price. Fewer examples of very fine horses may be presented here than in other breeding districts, but fewer fall below the standard aimed at.

"The Clydesdale Horses, although inferior in weight and physical strength to the Black Horse, and in figure and showy action to the better class of the draft horses of Northumberland and Durham, yet possess properties which render them exceedingly valuable for all ordinary uses. On the roads, the individuals perform tasks which can scarcely be surpassed, and in the fields they are found to be steady, docile and safe. It is important not only to the district which produces them, but to all the others to which they are carried, that a due attention be given to a development of the useful properties distinctive of the breed. In Clydesdale, some breeders apply themselves to the rearing of Stallions, and exhibit in their practice the skill and liberality which can be desired; but in the case of the mass of breeders in the district, no peculiar energy or skill is exhibited. They are often too easily contented with cheap and inferior mares, and not always sufficiently aware of the importance of employing stallions of the first class."

THE WISKONSAN PLOW.—(Fig. 67.)

This plow is highly recommended by those who have used it, for its ease of draft, and the perfect manner in which it inverts the sod. It is the invention of Mr. E. G. Whiting, and is manufactured at Rochester, N. Y. by A. J. Langworthy.

MINERAL PHOSPHATE OF LIME.

Mr. Kimberly has presented to the R. E. Ag. Society, a specimen of native phosphate of lime from the mountains of Estramadura in Spain, which when analyzed by Mr. Phillips was found to contain 90 per cent of the phosphate. As the Society supposed that this must be a most valuable manure, it resembling bone dust essentially, so far as the phosphate of the dust is concerned, Prof. Daubenny offered to undertake at his own expense, a journey to Spain, to examine its geological position, quantity, facility of obtaining it, &c. provided the British Government would grant him the passports necessary to ensure safety in that wild part of the kingdom. The Report of Prof. D. will be looked for with much interest

Notices of New Publications.

Elements of Scientific and Practical Agriculture; intended as a text-book for Farmers and Students in Agriculture. By ALONZO GRAY, A. M.

It is a subject of congratulation to every well wisher to the cause of agriculture, that the means of a thorough acquaintance with the principles which govern its progress, are being brought within the reach of every tiller of the soil. Ten years since no publisher would have hazarded the publication of a work on agriculture in this country. Now, there is no difficulty in finding publishers; and what is of more consequence, so far as effect is concerned, finding readers. In our last we noticed Dana's "Muck Manual," a work of great merit on the subject treated, and which we are glad to hear, is passing through a second edition; and now we are presented with another work, more comprehensive in its details, admirably written and arranged, and adapted to the wants of multitudes in our country. Hitherto the farmer has not had a book to aid him in his inquiries, such as is found in every other pursuit. There has been no text-book in the language, suitable to give the student a full knowledge of the elements of agriculture, or which could be advantageously used in schools; hence Mr. Gray's book is most opportune, and we will not doubt, will be most acceptable.

The object of the work is thus stated by the author in his preface. After adverting to the inconsistency of the states in making ample provision for almost every branch of knowledge with the exception of agriculture, the art on which all depend, he adds—"To supply, in some degree, this glaring deficiency in our popular system of education, and to call the attention of those who are interested in the prosperity of our free institutions, to the importance of having the sons of republicans well instructed in this most noble art, have been the principal inducements, for giving this work to the public in its present form. For we are fully persuaded that agriculture will never be held in the high estimation it deserves to be; that it will never attain to that perfection to which it is susceptible; until it is made a regular branch of study by those who practice it as a profession; until it is incorporated into our systems of education.

"But, although this work is designed for students in agriculture; it is not intended to be studied exclusively by those who are attending at some public institution. It is designed for the farmer, at whatever stage of his education he may have arrived; for we believe it is as true of farmers, as of any other class of men, that they are 'never too old to learn;' and that, unless they are very stupid, they generally do learn something every day of their lives."

There are but few of our primary schools, in which a class studying the "Elements," might not be advantageously formed; and we should be glad to hear it was used in this manner extensively. The arrangement is such that there is scarce a subject connected with plants, soils, or their management, that is not very fully treated. In a work on subjects where there are so many points not yet clearly understood, it is not to be wondered at if some should be left open for discussion; or that some of the opinions advanced should receive from all, only a qualified assent. We hail the appearance of this work as not only useful to the public, but in its execution honorable to the country. For real utility to the agricultural interest, the "Muck Manual," and the volume before us, are unrivalled by any of the numerous European publications on the same subjects.

The work is very well got up, in a volume of some 370 pages, 12 mo., Dayton and Newman, New-York, publishers.

BARCLAY'S AGRICULTURAL TOUR.

In our last we acknowledged the receipt, from . Boyle, Esq., England, of this new work, and have since had an opportunity of perusing it, and shall proceed to give a brief notice of its contents.

The object of Capt. Barclay's visit and tour in this country, was to determine whether an intended purchase of land for a near relative, should be made in the U. States or in U. Canada. The tour was made in the summer of 1841. He arrived at Boston in May. He says—"From the quantity of well fed beef and mutton I saw in the butchers' market, I inferred that the land about Boston must be good, and feeding well understood. The fish and poultry markets were also excellent, and, in short, there appeard to be in Boston no want of the good things of this world." He visited some of the country around Boston, and says—"I could not discover any appearance of a regular system of farming. The implements of husbandry were clumsy and uncouth." On the 8th of May, he came on to New-York, via Stonington, and on the 11th and 12th visited Long Island and Staten Island. Of the first he says it is the garden of New-York, but that its agriculture is without system, and that no regular effort is used to make the most of its great advantages. On Staten Island he found "large tracts of rich meadow land applied to comparatively little profitable use. They mow a considerable part of the meadows, but I saw very little stock—no sheep—and such cattle as were to be seen were of the most heterogeneous breeds, bad Lancashires, Scotch and Welsh, no two bearing the least appearance of consanguinity. The farming implements are of a rude and awkward description; and, in a word, here is a fine tract of land which, as regards the matter of agriculture, is almost neglected."

On the 14th he left New-York, and on the 15th was in Albany. Here he met with Mr. Sotham, and inspected Messrs. Sotham and Corning's Herefords, and Mr. Prentice's Short Horns. From thence he proceeded, on the 18th, by rail-road to Utica, Syracuse, Auburn; and by stage to Canandaigua. This last mode of conveyance calls forth sundry exclamations not savoring of praise, and deep condemnation of our roads and coaches; but the "admirably broken and high spirited horses," and the skill of the whip, was some compensation for the grumbling. He was delighted with the country from Geneva to Canandaigua, but regretted to see such fine land "evidently mismanaged and its intrinsic value lost." From Canandaigua he proceeded, on the 20th, to Gen. Wadsworth's, at Geneseo. "He lives," says our author, "in a fine house, exactly resembling that of an English squire, picturesquely situated on a rising ground, and commanding views, similar in character, and not excelled in beauty, by the prospects from Richmond Hill, or Windsor Castle." Col. Wadsworth's system of farming finds little favor in the eyes of Capt. Barclay, and he again regretted "seeing land so valuable covered with stock of so inferior a description. The Red breed of cattle, which I had seen all over New-York, Col. Wadsworth informed me, are considered to be Devons. If so, they are much degenerated, being of diminutive size, coarse and evidently bad feeders, averaging not more than from 25 to 30 stones."

As a fair representation of the farming of this country, the course of cropping, management of manures, rotation, &c., Capt. Barclay dwells at considerable length on Col. Wadsworth's methods, and finds little in them to approve. The plowing in the clover for wheat, instead of feeding it off on the land, and the waste of such vast quantities of straw, is pronounced a "most improvident mode of agriculture." One of the greatest defects in our system, Capt. B. considers to be our renting lands to tenants, the landlord receiving a portion of the produce in kind, instead of leasing it to them for a term of years, as is practiced in England. In the first case, the tenant is only anxious to get as much from the soil as possible without regard to the future; in the latter case, it is for his own interest to farm well, and make all the improvement possible.

Capt. Barclay much admired the control and action of our farm horses, but their blood like form appeared rather slender, and he thought that a cross of the Suffolk, Clydesdale, or heavy Lincolns would be an improvement.

From Geneseo, Capt. Barclay proceeded to Niagara, by the way of Caledonia, (where he visited several Scotch emigrants who had become wealthy,) Batavia, and Lockport. The Falls disappointed him; and from Niagara he crossed the Lake to Toronto. On entering Canada, he was much struck with the difference existing in favor of the United States, and at a later period he says—"This was my early impression, and every thing I have since observed, or by inquiry ascertained, has served to confirm it, and to satisfy me, that, of the two countries, the States hold out, for agricultural pursuits, by far the greater advantages to persons possessed of any capital." That Capt. Barclay's judgment in the matter is not influenced by his political opinions, and that his loyalty is undoubted, we have a right to infer from various passages, and particularly his high wrought eulogium on Sir Allen McNab.

From Toronto Capt. B. recrossed the lake to Lewiston, proceeded to Buffalo; up Lake Erie to Erie; from Erie to Pittsburg, by stage; (which again draws forth sundry maledictions on the American roads;) from Pittsburgh to Wheeling; from Wheeling to Baltimore, Washington and Richmond, which was the extent of his journeyings to the south. His object in visiting Virginia was to inform himself as to the true state of American slavery; and he was happy to find "the condition of the slaves physically one of great comfort and enjoyment, in comparison with that of our own manufacturing population; by thousands of whom, I cannot doubt, it would, in relation to the necessaries of life, be looked upon with envy."

At Richmond he had a good opportunity of witnessing one of the best specimens of southern farming, on the estate of Mr. Marx, but he was sorry he could no more approve of Mr. Marx's system of husbandry, than of that he had remarked elsewhere. One great cause of the light crops of grain in the United States, he attributed to the light seeding, we not using in general more than one-third that used in England.

Returning to Washington, he visited congress, and heard some speeches on the McLeod affair, and from what he heard of congressional eloquence, pronounces the principal speakers "superior to many who figure in the house of commons." Proceeding to Philadelphia, Capt. Barclay was delighted with the fine farms in the vicinity of that city. "The stock was of a superior kind, but blood or pedigree seemed to have met with no attention." Capt. Barclay here makes some very judicious remarks on the propriety of cultivating more roots for stock, although he admits that "the cultivation of corn supersedes here the use of green crops as food for stock." From Philadelphia, our traveler returned, through New-Jersey, to New-York, and on the 17th of July sailed for England.

Capt. Barclay's concluding observations contain many valuable reflections, but we have little or no room here to refer to them. One is, that "where nature is bountiful, man is apt to be indolent;" as explaining the little skill shown by us in agriculture. Another is that, although wages are nominally less here than in Europe, the quantity of labor a given amount will purchase, is equal to that of England. This he illustrates in several ways; and we think few will doubt it, who have compared American with foreign laborers at most kinds of farm work.

An appendix is given, detailing the proceedings of a dinner got up in honor of Capt. Barclay, in 1838, at his farm in Ury, at which most of the nobility and gentlemen of the country were present. At this meeting the chairman gave, as a toast, "Prosperity to the Royal Glenury Distillery," of which Capt. Barclay was the founder and proprietor. Capt. Barclay returned thanks, and stated that the consumption of grain was 80,000 bushels per year in the distillery. We hope the Scotch will think better of this matter, and come to the conclusion that the way to supply a starving nation with bread, is not to use 80,000 bushels of grain annually in a single distillery.

ROYAL ENGLISH AG. SOCIETY.

By a report in the Gardener's Chronicle of the meeting of the above Society on the 16th of March, we find a very favorable notice of Mr. Hatch's machine for sowing grain, seeds, plaster, &c., of which a figure has been given in the Cultivator, and of which a model machine had been presented to that Society, by our friend Mr. ROTCH, of Otsego. Since that time, a copy of the cut given in the Cultivator, with the description, has appeared in the London Farmer's Magazine, and the machine seems to have attracted much notice from its great simplicity and effectiveness.

At the meeting of the Council of this Society on the 18th May last, "on motion of the Duke of Richmond, seconded by Earl Spencer, Professor LIEBEG, and Mr. HENRY COLMAN, were unanimously elected honorary members of the Society."

The following is the statement of the present amount of members; no less than 500 new members have been elected during the last six months:—Life Governors 101, Governors 211, Life Members 328, Members 5,195; total 5,824.

At the annual meeting of the Society, May 23, the Earl of Hardwicke, was elected President for the ensuing year.

The annual Cattle Show for the present year is to be held at Bristol, commencing on the 14th of July.

GUANO MANURE AND POTATOES.

We have before alluded to this new manure, which is exciting so much interest in England, as one of the most efficient yet known. In C. W. Johnson's great work, the Farmer's Encyclopedia, now publishing in numbers, we find under the article Guano, some facts which, as exhibiting several matters comparatively, are of interest to the farmer, we give for the benefit of our readers. From a series of careful experiments, Mr. J. considers 35 bushels of Guano equal to 70 loads of good rotted manure, in its effect upon crops. Guano, it may not be amiss to add, is the dung of sea fowls, and found on some islands in the Pacific, on the shores of Peru. Considerable quantities have been imported to England, and as the quantity is apparently inexhaustible, the use of it promises to extend rapidly. It consists of the most active ingredients, bone earth, uric acid, and ammonia. The experiments of the table below were made by Gen. Beatson; and in every instance 35 bushels guano, 35 loads of horse dung litter, and 35 loads of hog dung litter per acre, were used. The potatoe was the root planted, and the table will show in what manner.

Depth planted.	Guano. bush.	Horse dung.	Hog dung.	Simple soil.
Large Potatoes planted whole.				
12 inches deep,	499	492	408	327
9 " "	466	460	427	327
6 " "	564	563	447	398
3 " "	531	479	414	311
Large Potatoes cut in pieces.				
12 inches deep,	556	648	869	285
9 " "	587	589	434	382
6 " "	589	531	486	408
3 " "	537	511	375	414
Middle eye of Potatoe cut out.				
12 inches deep,	382	479	298	165
9 " "	376	479	298	210
6 " "	476	563	405	337
3 " "	453	382	485	343
Small Potatoes planted whole.				
12 inches deep,	492	491	892	369
9 " "	557	512	525	440
6 " "	628	583	544	570
3 " "	557	414	440	440

The comparative produce in lbs. of potatoes from these manures, was therefore as follows:

Guano,	639
Horse dung,	626
Hog dung,	534
Simple soil,	446

The effect of different depths in planting, is as follows, in the total produce of bushels at each depth; a difference worthy the notice of the farmer, as showing that a depth of six inches is better than one greater or smaller.

12 inches deep,	7181 bush.
9 "	6828 "
6 "	8177 "
3 "	7106 "

Another result is shown in this experiment, and that is the difference in the crop where large or small potatoes, whole ones or cut, are employed for planting. In Gen. Beatson's experiment, the advantage is greatly in favor of small potatoes planted whole; and there are not wanting many farmers in this country, who maintain the same position.

Large potatoes planted whole,	7390 bush.
" " cut in pieces,	7620 "
Middle eye of potatoe cut out,	6230 "
Small potatoes planted whole,	8464 "

Condensed Correspondence & Inquiries.

THE MORGAN HORSE—AGAIN.

After our last paper went to press, containing the statement of Justin Morgan, Esq. of Stockbridge, Vt., that his father brought the original Morgan horse from Springfield, Mass., we received a communication from Mr. John Morgan of Lima, in this state, confirming the statement of Justin Morgan, that the sire of the celebrated Morgan horses of Vermont, came from Massachusetts instead of from Canada, as has heretofore been supposed. Mr. John Morgan informs us that he resided in Springfield, Mass., near Mr. Justin Morgan, senior, previous to his removal to Vermont, and that the two years old stud which he took with him to Vermont, as stated in our last paper, by Mr. J. Morgan, Jr. "was sired by a horse owned by Sealy Norton of East Hartford, Conn., called the 'True Britton, or Beautiful Bay.' He was kept at Springfield one season, by the said Justin Morgan, and two years after I kept him two seasons. This horse was said to be raised by Gen. Delancy, commander of the refugee troops on Long Island, and rode by him in the revolution. It was said that one Smith stole the horse from the General at King's Bridge, while the General was in the tavern: ran him across the bridge and took him to the American army, near White Plains, and sold him to Joseph Ward, of Hartford, Conn., for $300. It was also said at that time, that he was sired by the noted imported horse called the 'Traveler,' said to be kept in New Jersey. Ward was a merchant, and kept the horse three or four years for a saddle and carriage horse, and traded him off to Norton, and Norton kept him for mares while he lived. The description of the Morgan breed given by Mr. G. Barnard, answers well to the description of the stock of 'True Britton.' His stock was all bright bays, some inclining to sorrel. I have always understood that Morgan kept the colt for a stud at Randolph, and was very celebrated for his stock."

PREVENTION OF BLOATING—IMPROVED SHAKER—IMPROVED CHINA PIGS.

We make the following extracts from the letter of a correspondent in Bucks Co. Pa., April, 1842.

"As the time is approaching for turning cattle to pasture, I will give a plan that was successfully tried here last season to prevent bloating on fresh clover, or other grass, and I should like to have others try it and report the results. It is to put a common bridle bit in the mouth of the animal, and fasten it there by a strap or string passing over the head."

"I think I have made an improvement in the shaker to my fanning mill, and will try to describe it on paper. The riddle of my mill was shook by a knocker on the end of the axle of the blower, which projects two or three inches beyond the frame of the mill. This axle being square, I put a whir upon it about seven inches in diameter, with two deep grooves for a band turned in it, one of them an inch less in diameter than the other. I next put an upright shaft with a whir turned on the lower end about three inches in diameter, with two sharp deep grooves for the band corresponding with the other, and as much differing in size, so that the band may be changed without altering the tightness. Let the whir on the upright shaft be horizontal with the whir on the wind shaft, and it will not throw the band. Let the top of this shaft extend as high as the top of the riddle, three inches in diameter, turned off square and smooth, with a neck an inch and a half from the end, and fasten it to the side in any way most convenient opposite the front end of the riddle. Then by boring small holes in the top of this shaft, at different distances from the center and inserting an iron in them, a crank will be formed from an inch to five inches or more. There should be a small piece of good wood attached, or framed across the front part of the riddle or shoe, to which the iron forming the crank can be attached. Take about a quarter inch round iron rod, turn one end at a right angle, one inch, to go in the holes bored in the upper end of the upright shaft; flatten the other end and punch a hole that will take in a large screw, fasten it to the middle of the riddle, and it is complete with the exception of the band, which I have found best when made of wool. It turns easy, and you can give it any desired shake."

"I wish to know your opinion of the improved China hog, compared with the Berkshire—which will make the most pork with the least expense—and which is the thinnest skinned, and the best meat? I bought some pigs for China hogs, and they turned out wild, hollow backed, thick skinned and unprofitable."

Remarks by Eds. of Cult.—We have seen it stated that a band of straw placed in the mouth as the bit is recommended to be, would relieve the bloat. If the bit will prevent it, or will cure it, a great point may be considered gained. We hope it will be tried.

We see no objection to the shaker of our correspondent, except that the working of the iron crank in the holes in top of the upright shaft, would soon wear them too large. If our friend could see some of the mills of the farmers in the wheat districts of western New-York, we think he would prefer their methods of shaking the riddle, for ease and durability, to the one he has described.

The China is the only perfect hog; and the only way he can be improved for the farmer, is to cross him with a breed giving more weight and substance. On the breed selected for this cross, depends the value or the injury of the improvements. The imported Berkshires have been produced in that way; and as the original stock of Berkshires was a capital hog, the cross with the China has given a breed that will be rivaled with difficulty. From the account our friend gives of his China hogs, we fear that in his purchase, he was, as they say down east, "a leetle sucked in;" as they had not a single point in common with the Chinese.

SAW DUST—COTTON GIN.

A correspondent at Demopolis, Ala. says,—"My business is running a steam mill. Having last year made a simple contrivance by which I burn saw dust to much advantage, I am induced to mention it for the benefit of others. I have a door, say sixteen inches square, in the side of my furnace, just behind the fire grates. At this I throw in the saw dust; here it is brought immediately in contact with the flames, and answers a double purpose. Having no fire wall, I make in lieu thereof a wall of fire. My furnace has a strong draft which may be necessary to success.

A Gin for cleaning cotton has been invented by a gentleman in this place, on the roller principle; which by competent judges it is thought will supercede the saw gin. Preparations have been made for their construction, and they will come into use this fall. J. B. C."

QUEEN BEES.

We have received a communication from Mr. H. Palmer of New Marlborough, on the subject of bees, in which he says: "this is the third paper he has sent us, to which he has seen no reply or notice." If Mr. P. will turn to the 7th vol. page 152 of the Cult. he will find a respectful notice and reply to his first communication. His second was of a nature, in our opinion, requiring neither notice or reply, and was laid aside.

Our readers are aware that it is the common opinion, that a swarm of bees is divided into three kinds, the drones or male bees; the neuters or workers; and the queen bee which deposits the eggs from which the young are produced. Such has been the opinion of the ablest investigators, from the first notice we have of the history of bees. So thought Swammerdam, Bonnet, Thorley, Reamuer, and Huber; and so thinks Kirby, Spence, Wilson, Cuvier, Harris, and what may be thought as much to the purpose, so thinks every practical apiarian we have heard give an opinion on the subject, either in the old world or the new, with the exception of Mr. Henry Palmer of New Marlborough, who stoutly denies the existence of any such creature as the queen bee. We cannot think Mr. P. has followed our advice to make himself acquainted with some of the latest writers on bees, particularly Mr. Weeks, or he would not have hazarded the assertion that Mr. W. "has not said one word about a queen, and in so doing has shown his wisdom, for he, nor no other man knows any thing about a thing that never was."

As to proving that which no one (Mr. P. excepted,) doubts, we must be excused; but if some of our bee-keeping friends, should opportunity offer in the course of the season, would send us specimens of the several kinds of bees, we would endeavor to give Mr. P. an opportunity of satisfying himself, by the study of their well marked, external characters, that the whole world has not until the present time, been in an error upon this point. We have supposed that if any point in Natural History had been satisfactorily settled, the existence, functions, and use of the queen bee was one. Still, as all former observers may have been mistaken; and as a grain of truth is more precious than the accumulated errors of ages, Mr. Palmer may yet claim and receive the honor of discovering the grain that belongs to this matter. All we have to say is, let the right prevail.

"BLOOD OF A BLACK CAT."

Our correspondent, Eli Westfall of Dutchess co., enters his protest against the classing by 'Commentator,' of the use of a black cat's blood as a cure for the shingles, among "absurd and ridiculous superstitions." He says—"A few years ago, traveling in the eastern part of this county, I happened to be in the company of an old experienced physician. I wished him to examine my wife's neck, on which was a spot as large as her hand, full of small eruptions, and very disagreeable and painful. She had tried various remedies without effect, the disease constantly increasing. He immediately pronounced it the shingles, and directed that as soon as we got home, we should apply the warm blood of a black cat, and she should at the same time take small doses of Epsom salts. This she did a few times, and though the application was painful, the cure was speedy and complete. I might bring a respectable number of persons to testify to the efficacy of this method of cure, where the skill of the physician had failed, but shall give only one. The man that works my farm had this complaint desperately. All the doctor *did* was of no avail; it continued to spread until it had nearly surrounded his body, when he made use of about three cat skins applied warm with their flesh sides to the body, making use of the blood too, and a speedy cure was the result. I am not prepared to say that the blood of a black cat is any better than that of a cat of any other color; be that as it may, it is as easy to cut off the tail or the head of a black cat as any. I think I can perceive a vast difference in the superstitions of the influence of the moon on meat, or of lucky and unlucky days, alluded to by 'Commentator,' and that of curing the shingles by the blood of a cat. In the latter case there is a direct and tangible application, and unless Commentator can prove that the component parts of a cat's blood are not good for the shingles, I shall continue to believe my own eyes at least. I trust Commentator will forgive the liberty I have taken, as I can assure him that my wishes for the eradication of all superstition, are at least equal to his own."

"I hope Mr. George Woodfin will not fail to make public his method of manufacturing manure from night soil, and the effects resulting from it."

Note by Editors.—Those of our readers who have read "Coxe's Four Years on the Columbia River," will remember a cure of apparently confirmed consumption in a young lady, the daughter of the Superintendent, by direction of the Indians, performed in the following manner: A horse was killed, and the viscera, entrails, &c. removed with the utmost despatch; and the young lady placed in the cavity so formed, in such a manner that her head only was free. Here she was kept until the temperature was sensibly reduced, when she was removed. A few repetitions of this treatment completed the cure. Coxe does not say whether the horses were black or white.

YAM POTATOE.

Mr. Horsfield of Wyoming Co., after cautioning farmers to beware of paying extravagant prices for new things and advising them to avoid another Rohan humbug, adds: "But Mr. Smith's *new* Yam potatoes are new only in name. He says they are "*new to him;*" perhaps they are; but from the description which he gives, they are an old acquaintance of mine, and I can inform Mr. Smith that the same article precisely is cultivated in this section of the country, in great perfection; and that I will agree to furnish them in any quantity, at one dollar (instead of six,) per barrel. I will also join most heartily with him in recommending them as highly as he does, for their excellent qualities not only, but for their productiveness also."

Mr. H. has not stated the name by which Mr. Smith's 'Yam' potatoe is known at the west, but it appears to us to be the same known to some as the calico potatoe, and to others as the blue potatoe; the first name arising from the appearance of the interior, and the latter one from the color of the skin, which is a dark purplish blue. They are a first rate potatoe for cooking, of good or even large size, and so far as our experience with them goes, produce abundantly. It must be remembered, however, that local names are not the best marks to distinguish potatoes, they having very different names in different places.

"AN ONONDAGA FARMER," AND MR. ALLEN.

We have received from Mr. A. Bickett, a paper in reference to the communication of "An Onondaga Farmer," in a previous number of the Cultivator, some parts of which the writer will pardon us for omitting, as dealing too much in personalities, and apparently founded on misapprehension. After stating that he had seen in the Boston Cultivator, the paper of "An Onondaga Farmer," quoting some of his opening remarks, comparing him to a "certain important personage who on the pinnacle of the temple, quoted scripture to the wisest and best being the world ever saw," &c. Mr. B. goes on to say:—

"If this voucher for Mr. Allen, (if the twain are not one flesh, in a sense somewhat different from the scriptural one,) had given his real name, and his particular whereabouts, your readers would have been more able to put a just estimate on the value of his "conviction." There is enough of doubt existing already about the soundness of some of Mr. Allen's statements, (that on the subject of Short Horns not excepted,) without adding any more to it by the evidence of a person writing under a fictitious signature. It is high time that both Mr. Allen, and the author of the article referred to, (if they are two persons,) should understand that assertions are not proofs, whether they are made under real or fictitious names, however high authority the person or persons who make them may think themselves to be. It is one thing to assert that there is "only one man's herd in England that can improve our own," and another thing to prove it; and if either Mr. Allen or "An Onondaga Farmer," or both of them *can* prove it, they will do more than I expect—and I hope for their credit and our information, they will try; but I suppose this part will devolve on the latter of these two gentlemen, as the former has got more to do than he can accomplish to prove some of his own assertions. His doctrine about making Ayrshires, beats Transcendentalism all hollow."

After a series of comments on the remarks of "An Onondaga Farmer," respecting the danger to be apprehended from the importation of cattle affected with the prevailing epizoatic disease in Great Britain, denying there is any danger to be apprehended from that source, and insinuating that such an attempt to alarm the agricultural public could only have arisen from selfish motives, Mr. Bickett adds:—

"But I venture to assert, that so long as the frequent importation of animals continue, that the interests of some of the would-be-monopolist breeders of these animals in this country, (does 'An Onondaga Farmer,' or Mr. Allen, know of any such? I only ask the question, 'hope I don't intrude,') will be in much danger; and if the 'damage' to their interests would not 'be estimated by millions of dollars,' it would be estimated by dollars to some extent; and if any bugbear can be got up under a plausible pretence for the public good, that will prevent im-

portation, it would certainly enhance the value of those already imported, a thing which would no doubt be very desirable in some quarters. Mr. Allen raises a ghost about the 'expense of importation' being enormous; but he says nothing about the 'enormous' prices paid for animals of the improved breeds in this country. But as the old Scotch proverb says, 'it is not for nothing that the glid whistles.' 'An Onondaga Farmer' tries to impress the idea on the public mind, that we have enough of cattle of the improved breeds to supply our present wants; but that man must be but slightly acquainted with the country, who does not know that we have but a small fractional part of what is required for any speedy improvement: for both the 'enormous' high price and the great distance that farmers at present have to take their cows for the purpose of crossing with these breeds, causes them to spread so slowly, that a long time must elapse before 'An Onondaga Farmer' will realize the 'immense improvement' he is looking forward to, with so much 'pleasure.'"

BUTTER—TEMPERATURE AND SALTING.

A correspondent, speaking of the importance of a knowledge of the proper temperature of cream for making butter, says a gentleman of his acquaintance finding his family frequently baffled in their efforts to make butter, sometimes the cream being supposed to be too cold, when hot water was added; and sometimes too warm, when it was diluted with cold water; or if these were not added, the cream was transferred from the cellar to the fireside, or vice versa, finally recollected reading an article on the manufacture of butter, in which the proper temperature was stated; and purchasing a thermometer, found that by regulating the temperature, there was no difficulty whatever in making the butter from the cream. This temperature he thinks was 66°.

Our correspondent further says—"We purchase all the butter used in our family, and for fifteen years have had our winter supply from one individual. It has been put up in stone pots or jars, and only one parcel has ever been inferior. I showed this to the maker, and he was at a loss to conjecture the cause, as it was all made in the usual way, except one pot, which was made by his tenant, and their butter was as good as his own. I asked if it was not salted with Liverpool salt. He said not; as they never used it for dairy purposes, knowing it was unfit for that, or for meat: and that himself and his tenant, use the best Rock or Turk Island salt. Further inquiry, however, proved that the wife of the tenant, overlooking the facts of the unfitness of that salt, had used it for several pots of butter, one of which we had, and thus the inferiority was accounted for. Dr. Mitchell in a paper on the use of salt, deprecates the Liverpool as unfit for the dairy, or provisions of any kind; and ascribes the ill health and death of seamen in particular to that cause. Such salt may do where the article is to be used immediately, but not where it is to be preserved for any considerable time."

NOTE BY EDS. OF CULT.—From experiments made by Dr. Barclay, Mr. Allen, and by Mr. Ballantyne, it was found that the proper temperature to commence churning, was from 50° to 55°, and that if it exceeded 65° at any time, the effect was injurious on the quantity and quality of the butter. Mr. Ballantyne found that the temperature of cream rose in churning. Thus 15 gallons of cream at the temperature of 50° was placed in the churn; at the end of two hours it was 56° and at the end of the churning was 60°. Mr. B. found that the greatest quantity of butter was obtained at 60°; and the best quality at 55° in the churn just before the butter came. When the heat exceeded 65° or 68°, the milk could not be detached from the butter without the aid of salt.

STACKING STRAW.

"MESSRS. GAYLORD & TUCKER—At page 30, of the current volume of the Cultivator, I observe your remark about feeding sheep and cattle at stacks, in which you state that it has been your practice for several years to stack your straw in such a manner as to have it eaten out at the bottom; and that as it is thus eaten out, it gradually settles down until the whole is consumed; and that it is a mode of feeding straw more economical and useful than any other you have tried. My object is to request you to describe your manner of constructing such stacks.

Castile, Wyoming co. N. Y. J. HORSFIELD."

Select some convenient position in relation to the yard, barn, and the manner in which the straw will be delivered from the threshing machine, and then set four strong posts firmly in the ground, in a square form, some 14 or 16 feet from each other. These posts may be three or three and a half feet in height. If they are not crotched, deep notches must be cut in their tops to receive a stout pole, one of which is placed on each side of the square. The poles must be carefully notched together at the corners, so as to preclude slipping. Over these, and pointing to the centre, smaller poles, or smooth rails are laid at intervals of from 8 to 12 inches, at an angle of some 30°. The bottom part of the rails will rest on the ground, supported by, and lying across the large horizontal poles, and pointing upwards and outwards for the reception of the straw. After a small quantity has been put into this frame work, the rails must be equally and properly placed, and then the straw may be thrown on till the stack is complete, when the upper part will project some 8 to 10 feet over the poles. If the rails are laid too flat, the straw as the bottom is eat out, will not settle easily and equally, so as to be always within the reach of the cattle, as it will do when their inclination is greater. If the quantity of straw is great, such stacks may be made of any length; and as animals can go on all sides of them, they form while they last, an excellent protection against storms of rain or snow. We have been in the habit of occasionally throwing a little salt over the straw as the process of stacking was going on, and believe we have found a decided benefit from the practice. We prefer this mode of stacking, or rather getting rid of our straw, for these reasons:—it is as easily disposed of in this way as any other; it is always available as food for animals; it requires no labor in feeding out; it forms a good shelter for a considerable part of the winter; and the manure made when so eaten, will more than compensate for all the trouble. In getting out the manure, the rails and poles are removed. The posts alone remaining.

THE BEST MEANS OF PROMOTING AGRICULTURAL KNOWLEDGE.

WE have received from our correspondent F. Burt, of Ohio, a long communication on the subject of National and State Agricultural Societies, in which the writer contends strenuously against the right or the policy of the General or the State governments, to appropriate funds for the aid of such societies, he maintaining that the whole system of premiums is founded in error, and calculated to do more harm than good. Mr. B's remarks are principally in reply to "Commentator," and "Salmagundi;" but as he has been already heard in our columns, we have concluded to omit that part of his communication, and give that part in which he unfolds his plans of agricultural improvement, and in which we think he will find many of the warmest advocates of Premium Agricultural Societies to agree in the main with him.

"I really wish some of the friends of fashionable Agricultural Societies, would give us some matter of fact statements and arguments, showing wherein such societies are going to exalt the character, and improve the mind of the farmer. I wish to see the character and interest of the farmer improved; he ought not to be a hermit wrapped up within himself, with no interest or feeling but what can be calculated by dollars and cents. He ought to take an interest in the affairs of his own state and nation, and he ought to take a great interest in the affairs of agriculture. I believe that the best plan to promote that knowledge, would be to form societies in every town for the diffusion of such knowledge; to meet together often, have addresses if any of the members feel disposed to deliver such, and have familiar conversations on all agricultural subjects. Here might also be a never ending source of information in reading and discussing agricultural topics; every one could learn something from his neighbor; every one could give his views, or his experience, in raising wheat, corn, or cattle; and the very wise might possibly learn something from those that are considered *marvellously ignorant*. We might also go on a larger scale, and once or twice a year have county meetings for the same purpose, which might pass off with a good public dinner, every one to eat at his own expense. The same may extend to the States, or the United States, if any think that good can result from it. In this way farmers can meet together as friends and equals, and part as such. They will not meet like a party of loafers around a lottery office, all anxious for the prize, and part after that is declared, some few triumphing, but by far the greater number disappointed and chagrined. The spirit of good feeling is what ought to exist among farmers; and this exalting one above another, or putting a handle to a man's name, because he has hauled out two hundred loads of dung, as proposed by Mr. Morrell in his Salmagundi, is folly in my estimation."

DICTIONARY OF FRUITS.

OUR correspondent J. Horsfield, asks whether "there is such a work in our country as a Dictionary of Fruits, or any publication giving a complete list of all the fruits cultivated or known in the United States, with a full description of each."

We know of none precisely answering this description; but we think the last edition of Kenrick's Orchardist, approaches so near it, that our correspondent will find it about the thing he wishes. If he wishes figures of the fruits, he will find them in the "Orchardist's Companion," a splendid work now in the course of publication in Philadelphia, and noticed in the last No. of the Cultivator.

THE WEATHER—SNOW STORM.

EXTRACT of a letter from a correspondent in Onondaga county, dated June 17, 1842.

"Fortune has hitherto had the reputation of being the most inconstant jade extant, but she has at last found a formidable rival in the weather. Only think of snow and frost the 11th of June, this blessed year 1842. The latter part of May was cold and ungenial; the forepart of June was the same, 'only a good deal more so.' On the 1st of the month there was a slight frost, but not to do injury. On the 7th there was a hard frost, which in the most exposed situations, killed corn, beans, melons, cucumbers, &c. Friday, the 10th, was a cold rainy day, wind from N. to N. E. Thermometer which was at 78° the day before, fell before night to 36°, and at ten o'clock in the evening snow began to fall. Saturday morning, the 11th, the hills in the south part of this county, and in Cortland, were white with snow. On the most elevated parts it was from two to three inches in depth, and did not disappear before 12 o'clock. On the morning of the 11th, at sunrise, the thermometer was at 30°; the snow which fell wet was frozen hard on to plants, trees, fruit, flowers, &c. presenting a most gloomy and singular spectacle. In districts or places particularly liable to frost, potatoes and corn were killed to the ground, but on the whole the damage was not so great, as there was at first reason to apprehend. Fruits were unharmed, but gardens suffered much. This storm was followed by another frost on Saturday night; since which time we have had fine weather, with seasonable showers and high temperature, which has given vegetation a great start. How far this untimely snow storm extended is not yet known, but it has been heard from, from Oneida to the west line of the state, along the elevated lands that separate the waters of the lakes from those flowing south. As it melted rapidly when falling, the depth would have been considerable had it remained as it fell, and sleighing in June might have become a reality instead of remaining a word to mark incredible things."

CORN FOR GREEN MANURE.

"MESSRS. EDITORS—Can you inform your readers the comparative difference between turning under with the plow, two crops of Indian corn during summer, (sown at the rate of from 4 to 6 bushels to the acre,) and cutting it, and feeding to cattle; whether the difference would be in favor of turning under, or feeding. My own opinion is, that this crop plowed under, is worth three times its quantity, passed through the stomachs of cattle, for the improvement of the soil. L. P."

We are unable to state positively the results of the two methods of manuring proposed by our friend "L. P's" question; but if, as is maintained by all late writers on agricultural chemistry, the value of manures is depending on the quantity of nitrogen they contain—that animal matter contains a much larger proportion of nitrogen than vegetable matter—and that animal manures contain large quantities of animal matter, and consequently of nitrogen, we think it very possible that the corn crops fed out, and the manure made applied to the soil, would produce more effect, than if simply plowed in for decomposition.

STRAW CUTTERS AND FANNING MILLS.

"MESSRS. EDITORS—Will you please to say in your next Cultivator, what cutting box is considered best for small farms where manual labor is to be used, and what make of winnowing machines is preferred for small grain.

Ridge P. O., S. Ca. R. WARD."

Green's straw cutter, every thing considered, is generally preferred among farmers, as it is very little liable to break or get out of order. Those who wish machines that will cut finer than Green's, can have Gilson's or Willis'. Of Fanning mills there are an almost endless variety, as any one can see by visiting the wheat growing sections of this state, all of which will perform good work, principally differing in the rapidity of execution. Good fanning mills can be had in any part of the state.

PROSPECTS OF THE ENGLISH GRAIN MARKET.

ALTHOUGH in the present state of things, we can expect to export but little wheat or flour direct to Great Britain, yet the state of the grain market there, will of necessity more or less influence the price of flour here; perhaps not the less because the greatest portion of American wheat enters England as Colonial produce, from its having passed through Canada in its transit from our wheat fields and mills to Europe. The following extract from the Mark Lane Express, the highest authority in all matters relating to the English grain market, may perhaps furnish some idea of the prospect existing for a foreign demand for our surplus products:

"That the last crop was deficient is undisputed; some parties went so far as to estimate the deficiency at a fourth, others at a fifth, and the most moderate at a sixth; it is also a well known fact, that at the time of harvest, the stocks of old English wheat were completely exhausted, and that the consumption was consequently immediately thrown upon the new crop. Calculating then that the total produce of wheat should in average years be 20,000,000 qrs, and supposing the yield of last year only one-sixth short, we should have a deficiency in round numbers, of 3,300,000 qrs.; and if to this be added the deficit caused by the decrease in weight, which cannot be taken at less than 3 lbs. per bushel, or 24 lbs. per qr., we shall have a further falling off of 1,000,000 qrs., making together, the enormous difference of 4,300,000 qrs. [Thirty-four millions, four hundred thousand bushels!] To make up for this falling off in our own growth, we had an importation from abroad of about 2,500,000 qrs., nearly the whole of which has already been consumed. It would appear, therefore, that the stocks now in the growers' hands, must be very much below what they usually are at a corresponding period of the year. As yet, we have scarcely felt the deficiency of our last crop, having hitherto had plenty of free foreign; now, however, it must soon become apparent, as the stocks of the latter kind are nearly exhausted."

England has a population of some 25,000,000, and it seems to be a startling assertion that the falling off in her principle article of bread stuff the past year, is equal to one-half the whole consumption of wheat in the United States, with a population of 17,000,000. England, it must be remembered, has not our immense crop of Indian corn to fall back upon for bread when wheat fails, as we should have; and hence the suffering and distress for want of bread in that country, with a prospect of a frightful increase of misery before the next harvest.

Original Papers from Contributors.

COMMENTS ON THE APRIL AND MAY NUMBERS.

UNDER the head of "Work for the Month," in the April No., several things are stated as settled matters, which seem to require farther investigation. The first is,—Mr. Haggerston's opinion that a mixture of two-thirds muck and one-third stable manure, is as valuable and effective as the same quantity of stable manure alone. Now —unless this opinion is the result of very accurate comparative experiments, often repeated—I would respectfully suggest, that it is one of those novelties which requires a much fuller trial before it should influence general practice.

The second questionable statement is, that "stable and barnyard manures, when put unfermented upon land, should be covered." Many good practical farmers assert the contrary, and plead long experience in justification of their opinion. I mean not at present, to side with either party, but like old Sir Roger de Coverley in Addison's Spectator, will merely remark, that "much may be said on both sides," and therefore, that a final adjudication of the case should not yet be made.

Lastly, in speaking of Asparagus and Strawberry beds, you say, "None but compost manures of the best kind should be used for such purposes." It is within my own knowledge, that several very successful gardeners prefer for the first,—either salt, marl, or wood ashes, whilst others—from whose beds I have often seen cuttings which measured an inch and more in diameter—cover them in the fall with fresh horse dung mixed with straw, over which fresh wood ashes are strewed. Early in March, all the coarse parts of the manure are raked off, and the rest forked into the beds, over which some fine sand is then spread. A common notion prevails that it is wrong to disturb the roots, but I have known old beds to be materially benefited by running a single coulter through them.

On strawberry beds I have known marl, wood ashes, rotten chips, chaff or half rotted straw, to succeed quite as well as any other substances which I have ever seen applied to them. —

UNDER the head of "Nicking Horses," you have given, I believe, very proper directions; but I should greatly have preferred to have read the most severe reprehension of this barbarous practice that you could possibly utter. The pain inflicted upon the poor helpless animals subjected to it, is evidently excessive, to say nothing of its depriving them, during life, of that defence which nature has given them against the innumerable insects that for three-fourths of every year, are tormenting them incessantly. But what makes the matter still worse, it is all done—*not* to make the horses more serviceable—*not* for any benefit that it can possibly render to ourselves,—but merely to gratify a most false, barbarous and cruel taste, at the expense of our humanity. It is a pity but that the nickers themselves had tails—like their kindred spirits, the monkeys, and could be once subjected to only half the pain of the process; "I guess" it would speedily cure them of their barbarity to their poor horses.

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YOUR prescription for protecting "Poultry from Vermin," is probably very good; but I will add to it another, which I received many years ago, from a famous cock-fighter and breeder of game fowls, who said it was infallible. Make their nests and roosts of sassafras wood, and strew the leaves occasionally on the floors of their houses.

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I WAS much gratified, as I think every friend to truth and justice will be, by the remarks of the "Onondaga Farmer," upon that most unwarrantable attack on the character of the late Judge Buel, signed D. in "the South Carolina Temperance Advocate and Register of Agriculture." Whatever the writer may know about South Carolina agriculture, it is perfectly manifest that he is profoundly ignorant of its condition in other States, or he could not possibly have represented as incredible, accounts of corn crops per acre which have been surpassed in every corn growing state of our Union, from which we have received any authentic statements, (and such are very numerous in our agricultural papers,) in regard to the great productiveness of this highly valuable grain. It is equally manifest that this writer is quite as ignorant of the character of Judge Buel, both as a farmer and a man; for no one in the United States was more highly esteemed by all who knew him, nor did any man ever dare before to impeach his veracity. But pertness and self-conceit are always connected with dogmatism, and generally seek to attract public attention,—not by displaying any merit of their own, (for they have none,) but by attempting to destroy the merit of others.

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THE annual manuring of peach trees insisted upon by J. Dille, is certainly not necessary in all situations; for I myself, have seen several peach orchards which bore very fine fruit, equally good during many successive years, and without manure. He makes another assertion which I have never seen verified; nor can I see any reason why it should be correct, although I do not mean positively to contradict him. It is, that "*no tree so soon exhausts the soil in which it grows.*" Now nearly all fruit trees, except the plumb and quince, are considerable larger, and of course have more roots constantly drawing nourishment from the earth. Consequently, it is at least probable, if not certain, that they exhaust more than the peach. Of this much my own experience has long assured me,—that peach trees will flourish in land too poor for either apples, pears, or cherries.

T. of New Jersey says,—"*it is well known that if briars are cut in the heat of summer, the roots generally decay and die.*" I wish I could confirm this from my own experience; but unfortunately, I know well that they (at least the variety called the dew-berry or running briar,) very rarely, if ever, *will die*, merely by being cut, in the country with which I am best acquainted.

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IF your worthy correspondent who subscribes herself "A Farmer's Wife," calls such a breakfast as she describes, "*plain and simple*," I feel a strong curiosity to know what, and how many articles would compose such a breakfast as she would call the reverse of "plain and simple." Her bill of fare for only one man, consists of bread, meat, one doz. potatoes, a bowl of apple sauce, pickles, coffee or tea, mince and apple pies, with cakes and cheese ! ! But if "industry and sweet sleep," should give one man an appetite to devour even the half of such a medley of viands, I should fear that it would not take many such breakfasts to put him into his coffin. However, there is no disputing about tastes, and if the good lady has "a sure enough husband," or particularly desires one whose appetite craves, and whose stomach can safely stow away such a cargo, far be it from me to make the slightest objection to it, unless indeed, there was some danger of my being compelled to feed him for the customary price. —

I verily think the May number of your paper worth any three that I have yet seen of them, although I have been a subscriber from the beginning, and have never read one which I did not value at double the amount of the annual subscription. Your two statistical tables alone, would be a good bargain at two dollars, if they could not be obtained elsewhere. —

IN your article headed "Work for the Month," you did not sufficiently regard differences of latitude, when you said, "May is the month in which Indian Corn should be planted;" for in Florida this work is commenced about the end of February, and is done gradually, later and later, as the latitude increases to the north. Corn planted in good land, even as late as June, will often succeed very well in latitude 37.

In speaking of the Irish potatoe, you say, "the Pinkeye and Mercer are the best table potatoes." My family are now (14th of May,) using the Chenango variety, and we all deem them fully equal, if not superior, to the two kinds which you recommend: although I can say nothing of their productiveness, having now planted them for the first time. —

THE article under the head "Statistics—State of the Country," together with the two tables above it, contains information of very great interest; but it is deficient in one highly important thing, although it could not perhaps be easily obtained: this is a statement of the quantity of land actually cultivated in each state. This, if known, would enable us, when compared with the produce per acre of each kind of crop in the several states, to make a pretty fair estimate of the agricultural improvement in each; at least of the old states, wherein nearly all the arable lands are already in cultivation.

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IN the article on "Stabling Horses," I concur entirely with the writer who signs himself "A Subscriber," in preferring earth floors to any I ever saw made of plank, or to any which I believe can be made of that material. My preference is founded upon an experience of more than 40 years, during which I have had many opportunities of comparing the two kinds of floors, and of hearing the opinions of breeders, trainers, and owners of horses, in a state, wherein I believe more attention is paid to this kind of stock, than in any other state of our Union. —

MR. L. A. MORRELL'S "Salmagundi No. 5," has the same intermixture of the pleasant with the instructive, which characterizes every thing from his pen. But when he talks of justifying "a boy for striking his daddy," if he caught him feeding his sheep with "oats in the sheaf," *I* feel the same kind of inclination "to veto" his declaration, that *he* says he felt "to veto" your recommendation of this mode of feeding.

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THE "Corn-stalk Cutter," recommended by A Farmer, who dates his communication from Montgomery co. Md., may be preferable to the one formerly described by Mr. Garnett, but I cannot perceive from the drawing and description, that it is either more "economical" or simple. Indeed, unless I misunderstand the manner of using it, as described by the Montgomery farmer, it will not cut the corn-stalks sufficiently close to the ground for sowing small grain. But, be this as it may, there is a corn-stalk cutter described some years ago, in the Farmer's Register, which seems to me, most manifestly superior both to the Montgomery farmer's and to Mr. Garnett's. It is simply a small hoe made sufficiently light to use with one hand. The edge is to be well steeled, and always kept sharp. In using it, the stalk or stalks are held by one hand, whilst the hoe, wielded by the other, cuts them off close to the surface of the earth, or even below it, which neither of the others will do. And the stroke of the hoe being the same as that to which the arm is accustomed, no soreness thereof is produced by the act of cutting.

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THE "Distress in England," as represented in the short article under this head, is truly afflicting to any humane mind. Does it not arise—at least in a great measure—from the disproportion between manufacturing and agricultural labor, caused by injudicious and unjust legislation in regard to the two classes of Manufacturers and Agriculturists? If it does, let *our* legislatures take care not to follow an example so fraught with national calamity. —

MR. IVES' article on "Rotation of crops," deserves the attentive perusal of every farmer desirous of making himself well acquainted with this important practice, as there can be no good farming without it. There is no apparent extravagance in any of his calculations, nor any result stated which might not reasonably be expected by any body who will carefully try his plan.

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THE notion of Mr. Lyttleton Physick, about planting and cultivating corn, may suit the country in which he lives better than any other, for aught I know to the contrary; but he has against him, the opinions of all the corn growers whom I have ever seen south of Mason's and Dixon's line, where, I may say without presumption, that this matter is quite as well understood, as it is beyond it. Throughout this whole extent of country, at least, so far as I am acquainted with it, the corn growers therein, know well, from long and repeated trials, that no corn can be planted close enough in their climate, "to prevent the growth of weeds," and at the same time to make as much corn as would pay for the culture and gathering of it. They know also, and have often proved, that if they cease to work their corn when it has attained only "*one-third of its height*," they might as well have saved themselves the trouble of working it at all. Such farmers might call themselves *corn planters*, if they fancied the title, but "I guess" they never would be *corn gatherers* of much more than their seed for another year.

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UNDER the head "Privet for Hedges," a second instance occurs in your paper, wherein it is confounded with the *Pyracantha*, to which Privet has no botanical relationship whatever. This may be easily seen by consulting Loudon, or the work of any other botanist, in all which they will find the Privet called a Ligustrum, and the Pyracantha a Crataegus.

UNDER the head "Culture of Melons," you have omitted to state whether your directions for the treatment were intended for musk melons or water melons. If for the former, the distance of eight feet is too far for our climate, but not far enough for the latter.

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YOUR garden hints are very good, but I beg leave to remark that the shading of transplanted plants is unnecessary, if the operation be so carefully made with a transplanting trowel, (which every gardener ought to have,) as to take up with the plant, a ball of unbroken earth, as large as the trowel will conveniently hold, and deposit it without breaking, in a hole previously made large enough to receive it. I have often thus removed plants in very hot, and even very dry weather, and found them to grow perfectly well without shading, although this is best, unless the operation be carefully performed.

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I infer from Mr. Ellsworth's letter, as well as from what I have heard elsewhere, that some of his highly meritorious labors in behalf of American Husbandry, have met with sarcasms instead of thanks. This conduct, I must say, on the part of any farmer, is as unbecoming as it is unjust. If Mr. Ellsworth has published any errors, it cannot, for a moment, be justly supposed that he did it designedly; argument therefore, or a simple statement of facts, would have been a much more suitable refutation of them. But I confidently trust that he is not so sensitive as to be checked in the slightest degree, by such undeserved attacks, in his very useful and praiseworthy efforts to serve our cause. Onward let him go, and he will find thousands of other agriculturists always grateful to him for them, besides his and your friend,

May 18, 1842. COMMENTATOR.

CULTURE OF WHEAT.

MESSRS. GAYLORD & TUCKER—I lately read a report made by a member of an English Agricultural Society, that "a farmer of his acquaintance had raised wheat in the same field several years in succession, and that the last crop was nearly double the weight of the first." He stated also, "that the material used was very abundant and very cheap," but did not mention what it was. As this is an object of the highest importance to our farming interest, I have examined the component parts of wheat as obtained by analysis, and flatter myself that I have ascertained by what means our agriculturists may attain the same result.

It will be admitted by every one capable of reflecting on the subject, that all the properties found in wheat must be supplied by the soil, manures, rain or snow-water, or by the atmosphere. How is it then, that land which once furnished large crops of wheat, will no longer produce it, even when the soil has been enriched by the best known modes of cultivation? The defect has evidently to be looked for in the earthy parts of wheat, as all the elementary portions can be obtained from the usual modes pursued in good farming.

In examining the properties of wheat as given by analysis, I can discover only one portion that is not supplied by the best routine of farming, and that is *silicate of potash*. Now as a given portion of this earth is absolutely necessary to the formation of wheat, and as our best soils and manures do not usually furnish an ample supply, it at once occurred to me that this was the one thing needful; and that if an adequate supply be added by our farmers to their wheat lands, their crops will be always good, and a succession of crops be obtained from the same fields, increasing annually in quantity, until it arrives at its maxi-

mum, which will probably be sixty or seventy bushels per acre, on land of first quality.

Having, as I confidently believe, pointed out an application by which our farmers can greatly increase their wheat crops, I shall now proceed to inform them how they can obtain an ample supply of the material, at a price that will enable them to use it freely. Glass of all kinds is a silicate of either potash or soda, and I think it can make no difference which is used, as both will probably produce the same result; it being well known that nitrate of soda is as effective when used as manure, as is the nitrate of potash. Hundreds of tons of broken bottles can be collected in New-York annually, and will only cost the labor of collection and grinding. I think it could be furnished as cheap as plaster. A sand paper manufacturer has offered to supply any farmer desirous of trying it, at fourteen shillings per barrel, ground as fine as flour; and as one barrel per acre would probably be an ample supply, the cost of trial would not be very heavy. Broken crockery of all kinds would furnish a supply of an inferior quality to glass. An inexhaustible supply could be obtained by calcining silecious sand with potash, and at a very cheap rate. It is more than probable, that fine ground silex, mixed with wood ashes or potash, would answer just as well as when chemically combined, for nature can produce combinations far better than man. Burnt clay would probably answer every purpose, by mixing it with wood ashes or potash, as clays contain from thirty to sixty per cent of impalpable silex. The other constituents of clay would be a valuable addition to the soil. WM. PARTRIDGE.

New-York, 34 Cliff st., May, 1842.

TOBACCO—ITS HISTORY, CULTURE, &c.

ITS DISCOVERY AND NAME.—Tobacco is a native production of America, and was in common use among nearly all the Indian tribes when this continent was discovered by Europeans. Its original name among the natives of the islands, was "Yoli," and with those of the continent, it was termed "Petum." The Spaniards however, chose to call it Tobacco, a name in the Haytian dialect, designating the instrument in which the herb was smoked. But the systematic name, as understood and acknowledged by Europeans, is *Nicotiana*, after, or in honor of one Nicott, who first introduced it upon the continent of Europe.

INTRODUCTION—EUROPEAN OBJECTIONS.—We learn that this plant was first introduced into Spain, then into Portugal and France, and at length into the countries of the eastern continent. Sir Walter Raliegh carried it from Virginia to England, and taught his countrymen the various methods of using it. But its introduction was attended with ridicule and opposition; pamphlets in various languages were issued, dissuading the people in the strongest terms from the use of it. James I. of Great Britain, circulated his "Counterblast to Tobacco." Pope Urban excommunicated those who took it into churches. Queen Elizabeth also prohibited its use in houses of public worship. An edict was published in Transylvania threatening confiscation of property to those who should plant it. The Grand Duke of Moscow and the King of Persia, prohibited its use under the penalty of the loss of the nose and even life. Notwithstanding the objections of those larger worms, that are now no more, and of the almost prohibitive duties laid on the article by foreign governments, the plant is in demand; although of itself, it is a nauseous weed, of an acrid taste and deleterious quality, yet its charms are such as to insinuate itself in the favorable opinion and use of men of every grade and shade, from the red man of the forest, to the priest who officiates at the sacred altar.

ITS MANNER OF CULTIVATION IN MARYLAND.—As early in February and March as the weather will permit, we commence by selecting (if we have it,) a rich south hill exposure, or the best we have, even to a cowpen in the open field. Some burn on their beds much brush, others cannot, while all dig well, rake and perfectly clean and pulverize the earth. The seed is sown, raked, and then patted or rolled; they are by some covered with a light layer of brush, as a protection from frost. We have now, to be successful, to keep under or rather eradicate all the grass, or it will outgrow the plants. Our tobacco lots, having been prepared by fall or spring plowing, in good order, i. e. being checked off from two and a half to three and a half feet apart, and made into hills, giving from four thousand to seven thousand hills to the acre, as each one fancies best, we are now ready with the first good rain in the last of May, for transplanting, which is done similar to planting cabbage plants; and we continue at every rain to transplant and replant until the 1st of Augus'; but it is often the case, such late work is left to the frost. We have now to keep the grass from it with the hoe, and work it every week, if we can, with the plow and cultivator, until its size stops such operation. It now becomes necessary to top it; and it requires some judgment to do this so as to suit the soil and the season, and allow no more leaves to remain than will be made perfect. If not cut in two weeks after this, it becomes necessary to go through it again; and the planter will find instead of Hercules' Hydra producing two heads for one destroyed, he will often find a half dozen shooting up from the joint of as many leaves, which had better be taken off. His attention will be arrested often at twilight, with the swift winged, gray butterfly, darting under the bottom or underside of the leaves, and there fixing her egg or embryo of a similar fly; in a few days he will see his tobacco disfigured and destroyed, and for his own interest, with all his humanity and mercy, be compelled to commence the work of death, or lose the reward of his labor. This tobacco, or horn worm, as it is generally called among us, is similar to the silk worm in crawling out of his old skin at certain periods, and lastly, going into the earth and through the crysalis to the butterfly. This fly may be seen at eventide, thrusting his long sucker down the petals of the jimstone and honeysuckle. The number of worms which we have, vary much from one to twenty to a plant, though it is rare to be so much overrun as was the case a year ago, when many fields were abandoned. When the tobacco is ripe, it turns spotted or a yellow green; in the meantime all such leaves as become yellow at the bottom, are taken off, and hung up and cured as scrub or ground leaf; those who straddle the stalk upon the stick, splint it standing before cutting. All cut it alike and let it lay to limber or fall; when at the house, some straddle across the stick, others drive a peg in the butt end and hang it up, and others dart it upon a stick by means of a dart made for the purpose, to receive the sharpened end of a stick. It is then either scaffolded in the sun a few days, or hung up in the house, to be fired or not, as suits the planter. In Nov. and Dec. we commence stripping, rarely finishing before it is time to commence a new crop. The tobacco is generally assorted when stripped, hung up to dry and condition at the time of stripping by some, and after being dry and again in good order, taken down to pack; others winrow by laying it in long rows one bundle deep and two or three high, and pick a time to pack, but the old time is best as I know from experience, which is to put it down in bulks of any size as stripped; weight it down. This course appears to be the chemical one pointed out by Liebig, who says it must absorb oxygen; but too high a heat must be avoided to secure a proper odor, and in this way, the substance necotin, which was not present before, will be produced by compactness and a proper heat, when the bulks get warm: they are then shook out, and handled afterwards to condition, as others tried to do at first by winrowing and hanging up, and when in order taken down and bulked for packing; this is a sure way, besides it gives a delightful flavor to the article, and there is no fear of having it condemned. The next job, once much dreaded, is packing; in the old way, one a day was called good work, but since improvement and invention is all the go, we have a screw press made by Mr. Elliott Richardson, of West River, Maryland, which he informs me, pressed for its owner, a Prince George planter, fourteen or fifteen hogsheads of tobacco, with inexperienced hands. This press appears to be worthy the attention of the planter. Its durability, faithful workmanship and cheapness, will recommend it to the notice of the public. The price, per advertisement, is $125, to be worked with hand or horse power.

ITS USE AND ABUSE.—According to Dr. Culling's Nosology, as seen in Hooper's Dictionary, we find tobacco used as a narcotic, as a sialagoge, as an expectorant, an emetic, a cathartic, and a diuretic. In Eberle's Materia Medica, we read that tobacco destroys the heart, by rendering it insensible to the action of the blood, and causes death. It has been successfully employed in cases of dropsy and dysury. Dr. Fowler says it will produce copious diaresis. It is good nephritis calculoso. Mr. Earl advocates tobacco injections in certain cases as being very good. Dr. Westburg administers the tincture of tobacco in ischaria; and many other medical writers could be named who found tobacco a useful article, and there may be some few out of the host who use tobacco from a perseveringly acquired habit, that know and feel its worth. As to my own experience and knowledge upon this head, it is profitable to raise, when I can clear forty to fifty dollars to the acre, and keep the stocks and trash to smoke the musquetoes away from my cottage in summer. More than this I desire not, believing, that by habit it is abused by a large portion of its consumers.

ITS EFFECTS UPON THE SOIL.—General opinion is that the culture of tobacco exhausts the soil; from the circumstance of so large a crop of vegetable matter produced in so short a time, it gives weight to this opinion; when we see forty and fifty thousand pounds of vegetable matter produced in three or four months, and yet it is a good crop to get one thousand pounds of the leaf cured. To repeat this crop in the old way, it is without doubt a great exhauster. But by such systems in rotation, as I have advocated in a former number of this paper, I have given positive proof it may be no exhauster, but a great convenience. Liebig says, "on soil containing potash, both wheat and tobacco, may to advantage, be raised in succession; the first taking up the phosphates of salts, the latter the alkalis and food containing nitrogen." A correspondent, "I. C." in the Phil. Cabinet, says, "it is not to be forgotten, that no crops exhaust (comparatively,) the soil until they begin to perfect their seed, blossom buds are not furnished with returning sap vessels, and it is therefore they that exhaust the soil." Taking for granted, his theory to be correct, I desire no better argument; the matter is settle l, and why—because every good planter will prevent the like taking place, and only turn out as much to seed as may be wanting for another crop. The chemical opinion of the two gentlemen just named, will confirm my position and settle my practice in this matter; that is, that fallowing clover in the spring for tobacco, succeeded by wheat, gives almost an extra crop, and by suffering the same to remain to be turned up in July and August, and then sowed in wheat, is not a difference of more than ten or fifteen per cent. in favor of wheat. Yours respectfully,

D. G. WEEMS.

Tracy's Landing, Anne Arundel Co., Md., 1842.

REARING CALVES—CARE OF STOCK.

MESSRS. EDITORS—I have seen in your Cultivator, different ways of rearing calves, none of which did I think, was preferable to my own, which is as follows:—I take the calf after he has sucked a few times, tie him up under shelter, as near the house as convenient; feed him 8 or 10 days on new milk, and then on skim milk as long as convenient. I take a trough about three feet long and nail or fasten it down on the sill, so as not to be easily moved. I then make a small rack over the trough, against the side of the building; tie one calf on each side so that I can go between to feed them; put hay in the rack, which the calf will soon learn to eat. I make a floor raised a little above the ground, for the calf to lie upon, that he may not have to lie in the mud; and there I keep them until after harvest, or until fall feed comes; then the milk, whey, &c., is turned into the swill tub, out of which I feed my hogs and calves, putting in occasionally a little meal or bran, if it gets too thin. The calves will soon learn to drink any thing that I see fit to give them; it needs to be a little warm; always careful to keep hay in the rack; they will never scour, and when they become cows they will eat any kind of slop, which in my opinion is all-important in a cow. I had rather have one cow that will eat anything I see fit to give her, than two that are dainty, and will not eat their slop unless it is just so nice and clean.

I believe the greatest error our farmers run into, is the miserable manner of wintering their stock. There are very few stocks of cattle that I am acquainted with, that are wintered as they should be, to make them profitable to the owner. The general calculation is merely to keep them alive until grass comes, and then it takes them until midsummer to get recruited, and by that time the flush of feed is over, so that they give but a small quantity of milk, and the final result is there is little or no profit arising from their cows over and above their keeping; when if they were fed as they should be, they might be made to pay for their bodies every year. I have been in the habit of feeding my calves at least once a day for the first year. When I turn them out after harvest, I endeavor to keep them in some field near the house, and give them drink out of the swill tub every day. The consequence is, they are large and sleek, and attract the notice of strangers, who inquire what breed they are of. Through the winter I feed my cows in the stable, and when I turn them out, I learn the calves to go in, and there I feed them on roots regularly every day, and they are sure to come in at two years old, when they are larger than common three year olds, and make first rate cows. They are always ready to eat anything I see fit to give them; always saleable, and command a good price.

I was formerly in the habit of fattening my calves if they did not come in as soon as April, but now I care but very little what time they come. If I have a choice cow and wish to raise her calf, I raise it with very little extra trouble.

In the fall previous to our temperance reformation, our minister was anxious to form a temperance society. I met him one day in the road, when he told me he had just had an interview with one of our neighbors on the subject of temperance, who asked him what we should do with our overplus grain if the stills were put down. He said he wished that that question could be answered satisfactorily, as it had been put to him a number of times, and he did not know how to answer it to his own satisfaction. I told him there was no such thing as overplus grain. It was a contradiction in terms. A farmer might as well inquire what he should do with his overplus manure; there would be as much propriety in it as to ask what we should do with our overplus grain. One man might have more than he wanted, but there was no more in the country than was wanted by the country. All the grain that was distilled was wronged out of the stock to which it might have been fed to greater advantage and better profit than to distil it, even if alcohol had been a good thing. Look over into that slaughter yard, and see those cattle brought there to be slaughtered, in nothing more than good wintering order; our pork is tolerably good, but our beef is wretched; I presume there is not a solitary animal there that has been stall fed. All the coarse grain in the country might be fed to our beef to good profit. Sending it to the distillers, is like the farmer selling his manure because he could realize the avails sooner than he could by putting it on his land.

Galway, Saratoga Co., N. Y. 1842. P. OTIS

CUTTING GRAIN AND HAY.

MESSRS. EDITORS—As the time is rapidly coming when this important branch of husbandry must be done, it will be well for the farmer to study this point well. With regard to cutting grain, I believe that most farmers are apt to wait too long. Some seem to be governed by the color of the straw, and think it necessary that the straw should be all turned, before they cut it. The grain itself is the thing to be watched, and when you find the kernel is filled and projects out of the ear, then don't delay in cutting it, be the color of the straw what it may; and you will find the grain to be more full and better, than if you let it stand till the straw all turns yellow. We noticed last season, that we cut our crop when the straw was quite green, and we noticed also when we threshed that they retained a green fresh color, and do so at the present time. With regard to cutting grass, as to the best time, farmers will of course differ. I think grass should get its growth before it is cut, and I like to have it cut and cured so that when we pitch it off the mow in the winter, it

will retain a greenish color. For timothy, or herds grass, we prefer to cut it when the blows are just filling up, as we think the stalk retains the juice better than when the stalk is dead ripe. Clover we think should be cut after it is blown out and the seed is formed, and it should be cured in cocks as much as possible, as in that case the leaves are saved. L. DURAND.

Derby, Ct. May, 1842.

AGRICULTURAL THERMOMETER.

MESSRS. EDITORS—I feel in duty bound to express some grateful feelings for the favorable notice you gave in your March No. of the Agricultural Thermometer, and also for some other notices of your correspondents since that time; as I presume you well know that no person would incur such an expense of time, study and labor, much less of money, as it cost me to construct my little thermometer, for such a purpose, who would not enjoy great satisfaction to find it producing favorable results.

You will, perhaps, find yourself under a mistake, as to the identity of the person to whom you impute the invention. You may find the inventor of the thermometer a person of greater pretensions in the acquirements of agricultural science, than the one you hint at, though perhaps less devoted, and less a proficient in fascinating horticulture.

With respect to the small dimensions of my implement, you must be aware that prudence forbids going great lengths at first, in hazardous untried experiments. It would certainly afford me great pleasure to extend its length sufficiently to indicate the highest flights of genius and of merit. But the task I had to perform, simply to test its practicability, was such as at least, to require some time to recruit, before commencing another upon a larger scale. Could you or your friends, understand the nature of the case, you would not, at any rate, expect it till the season of the year shall permit. You must remember that the precious liquid, the truly aqua mirabilissime is, as it is emphatically styled, "the spirit that dwells in flowers," and it can only be obtained at that season when the most glowing verdant heat has excited into action the utmost strength of blooming nature, and not when all nature sleeps in the frozen embraces of winter; and besides, were the season present, I could not but dread a repetition of the arduous labors I underwent in obtaining the first specimen of the article. I could never have effected it, had it not been for the joint aid of my friend, Monsieur, the French chemist, and the sage Wampoosum, the Indian doctor. No one but the latter knew the location of the flowers necessary, and no one but the former could "wring their shy retiring virtues out."

It is generally conceded that all men of great genius are eccentric. At any rate, these two were so; and the bent of their eccentricities were as opposite as the poles. They would neither ride in the same carriage, eat at the same table, nor sleep in the same room. The Frenchman's olfactory nerves could not brook the effluvia of bear's grease, with which the doctor's body was copiously annointed, nor could he endure to see him exercise his masticators on raw beef, nor dispense himself with any of the culinary items peculiar to his country; and the aboriginal genius was equally disgusted with the Frenchman's loquacity and ceremonious politeness. Even when thus separated, I was driven to the borders of hypocrisy, in being obliged to acquiesce assent to their embittered remarks against each other. The Frenchman would exclaim, "Ha! mauvaise sauvage—know noting—he have no regard for le chemie et les autres grands sciences—he be un brute;" and I had no alternative but to reply—"oui Monsieur, c'est bien vrai." And the Indian, perhaps in the same half hour, would greet my ears with "no lik'um Frenchman—he no good—he eat'um frog—he ro'sum meat all up—he talk'um too much." I was therefore subjected to the expense and trouble of providing for them separately; and of transporting them alternately from one stage to another, by ride and tye, like the man with his fox and goose and peck of corn. As the same aid will be indispensable, you will therefore perceive, Messrs. Editors, that it will be a most serious operation, even when the season arrives, to construct another and more extensive thermometer.

It would give me great pleasure to accomplish it, notwithstanding the vast fatigue and expense. But I am not certain of the aid of the wonderful French chemist, nor of that great scholar of nature, the Indian doctor, without both which I could not even hope for success. I can therefore only promise with great caution.

I must here be permitted to present my grateful thanks to your truly valuable correspondent, Commentator, for the kindness of disposition he imputes to me, in being more inclined to praise than to blame, at the same time confessing the fact. But with respect to the improvement he suggests, I would inform him that were I disposed to avail myself of the quality the instrument already possesses, it would be needless to add the liquid he proposes, as I have lately discovered that its effects, as to censure, though of a negative quality, are perfectly adequate. In applying it to several articles, which though I do not like to condemn, I could not praise, I found the liquid shrunk in bulk, accompanied with a sensible degree of coldness.

In a late conversation with a friend, on the stupid practices of some of the stubborn farmers of the old school, while merely holding the instrument in my hand, the liquid contracted almost to a single drop, while its temperature fell evidently below freezing, accompanied with a faint hissing and a sensation somewhat like that of a person in an ague fit. I shall still for the present, continue the occasional use of the instrument in its present state, for my own amusement, as I am convinced of its correctness as far as it reaches.

On applying the thermometer lately to the various articles from the pen of Commentator, as its effects were very peculiar, I was more convinced than I had ever been, of its correctness. It showed no marks of agitation, but became gradually luminous, giving out a degree of heat, and rising steadily to the top, the light and heat increasing, till both became intense, seeming to assume that position as its native home; and I have no doubt, if the instrument had been of sufficient length, it would have risen with equal tranquility to a much greater height. I hope, however, the gentleman will pardon the want of sufficient capacity in the instrument to do justice to his merits; should I succeed in constructing another, I hope it will make ample amends for the present deficiency.

On the application of the little tube to the writings of L. A. Morrel, Esq., the effects were no less singular. The magic liquid became slightly luminous, moving up and down, as if anxious for greater space. I was a little apprehensive of damage to the instrument, from the too violent agitation. I ventured, however, to bring it near, but not in absolute contact to any of his productions; the effect became more violent. The critique rose with alarming force to the top, and retreating as if to gather strength to make new attacks, with an apparent determination to force its way through the top of the instrument, all the time emitting brilliant scintillations. I was of course, reluctantly compelled to withdraw it; which I did, with a determination, as soon as the proper season arrives, if I can possibly obtain the aid of my two indispensable assistants, to attempt constructing another of sufficient capacity and length, to indicate the extreme ultimatum of genius.

A due regard to extraordinary talent, forbids my feeling any displeasure at the gentlemen, for having thus jeopardized my valuable instrument, but if he has any thing in store surpassing what has already been given, I hope he will exhibit it soon, that I may be better enabled to calculate the maximum degree of my contemplated enlarged thermometer. *April* 18. A. OF THE NORTH.

ON BREEDING SHEEP.

MESSRS. GAYLORD & TUCKER—There is not a writer of the Cultivator, whose communications I read with more unvarying pleasure, than those of your correspondent, L. A. Morrel. There is something so off hand, so racy, about him—and then how easily now and then he "*slides*" into the "*aromatic!*" The man who has devoted so much time and care on the protection of the dependant brute—who has so feelingly urged the same humane course on others, must have his *heart in the right place*—must be a true friend, a kind husband and father, and a citizen whose valuable influence and example is felt over a wide circle of society. In many, indeed I may say in *most* of the positions assumed by Mr. Morrel in the Cultivator, I am happy to say he has my hearty concurrence. But in the May No., he has advanced opinions which I am constrained to differ from. Nor is this all. He has evinced a want of that gentle charity which had previously characterized all the effusions of his pen. Mr. Morrel may disbelieve in crossing the Saxon or Merino sheep with the English varieties—but was it necessary for him to stigmatize every such effort on the part of others, as "some sudden impulse of ill-digested enterprise;" and to insinuate that it could originate only in the desire to "humbug" the public—to "find a soft one to gull," and "obtain one's price!" Have not A, B, or C, as good a right to raise cross-breed sheep, as Mr. Morrel has pure Saxons—and this too, without having their motives impeached? Is Mr. Morrel not aware, that even the fine wooled sheep of Spain, the parent stock of the Saxons, are usually considered the result of an early cross; that Durham cattle, Berkshire hogs, the English race horse, in short, the more valuable varieties of all kinds of animals, are the results of crosses? Where then, the iniquity, or the "humbuggery," of attempting to supply what one deems the defects of one breed, by engrafting on it the better points of another breed? The attempt may fail, but has not every one the right to satisfy himself on the point? Mr. Morrel says his conclusions "take not their hue from personal interest." I believe him. From the acquaintance formed with him through his writings, I believe him too much of a gentleman, to advocate falsehood merely to benefit his purse. But there are men whom I *know* to be just as elevated, and above wielding a mercenary pen, as I *believe* Mr. Morrell to be,* who are actually engaged in experimenting in the crosses between the Spanish and English varieties. Why should not some of these men turn round and impeach Mr. Morrel's motives? It is as easy to recriminate, as it is to criminate. And have the Saxons never had anything to do with "humbuggery"—never found any "soft ones to gull?" Let the men who have purchased them at $50, $100, or $150, a head, answer! And would it be less natural to suppose that a breeder of the variety, looked back with a certain hankering after a return of such times, than that other men, every way as elevated, looked forward to some new speculation? I again repeat, however, that I feel confident Mr. Morrel is entirely above any such consideration. I would only show him that it is never expedient to impute wrong motives, in a controversy, to men, who are no more interested in the result, and consequently no more likely to be influenced by such motives, than ourselves.

And on what grounds does Mr. Morrel thus scatter his arrows right and left, and defy the world to a controversy with him? Has he given us the conclusions of a long experience? Has he given us the results of accurate experiments? Has he given us the "knock-down facts" which he claims are so much better than "*attempts at guessing*," and "*mere speculation?*" Oh no! His denunciation of others, is based merely on his "*opinion*" of what their experiments *will* lead to! He *guesses* they will fail, and therefore he cries "mad dog," "speculation," *in advance!* He has not tried it, but by a rare species of intuition, not vouchsafed to ordinary mortals, he *knows without trying it!* Why, my dear fellow, are not other people's *guesses, speculations*, and *opinions*, as good as your own? Why demand that your *guesses* and *opinions* should be met only by facts—"knock down facts?" Is it not asking a little too much? STOCKPORT.

5th mo. 8th, 1842.

* I would say to Mr. M. in my own behalf, that I have bred some English sheep, and seen more—that I have dabbled some in crosses, but only for my own information and amusement, never having sold any.

RACKS FOR SHEEP, &c.

MESSRS. GAYLORD & TUCKER—A writer from Poughkeepsie, wishes information of me relative to feeding sheep at stacks. He inquires if the rails, on which the stack is built, rest on the bottom rails of the pen, or on the ground; what is the effect of dust and grass seed on the wool, and whether there is not danger of the stack falling down and killing the sheep? The rails are laid on the ground; the only use of them is to keep the hay off the ground. With regard to hay seed and dust, they will get more or less in the wool on the head and neck; and so they will if fed in board boxes or in racks, or in any way that I am acquainted with, except feeding on the ground. As to the settling of the stack, there is no danger, (unless the blocks on which the pen is built, fall down,) until the stack is eat down so small that the top will go inside of the pen; and to prevent this, I generally put three or four rails through the pen under the stack; but I think the better way will be, when building the stack, after the pen is full and the hay a little higher than the top, to lay two rails on each side of the pole at equal distances, so that the upper part of the stack will rest on six rails, including the two outside ones of the pen. I design to build all my stacks in this way the ensuing summer. There is very little danger of the blocks on which the pen is built falling down, if they are as much as 18 inches in diameter, and both ends sawed off square and set level on the ground, and the two first rails to lay level on the top of the blocks; the two next that cross them should have wedges of wood or stones, the thickness of the first rail, put under them on the outer edge of the blocks. If built in this way, I think there will be but little danger of accidents; at any rate I have not met with any this winter. After the bottom is eat out, and the sheep have eat out between the rails on which the stack rests, it will be necessary to knock the rails a few inches to the right or left, that the stack may settle a little; if an axe is not heavy enough, a heavy rail, used as a battering ram, will be sure to answer the purpose. There are several advantages in feeding at the stack, and not the least is that the sheep are always foddered and fed, all, and no more, than they will eat; it cannot rain or snow on the hay that they are eating; the top of the stacks are not opened at all, and of course are not exposed to rain and snow. There is also a considerable saving of labor.

I have a cheap fixture for feeding straw or stalks, which I will describe. It consists of four round posts, about 8 or 9 inches in diameter, 9¼ feet long, set 2½ feet in the ground; the upper ends champered nearly to an edge, and as large a notch or fork cut in the same as the timber will allow; in these notches lay two round poles 7 or 8 inches in diameter, for plates, and across the ends of these lay two similar poles; notch and saddle them together in the usual way of building a log house; then dig a trench from post to post 18 inches deep, and take small sized rails or round poles, set them in the trench about 9 inches apart, champer the upper ends so thin that a tenpenny nail will confine them to the plate; ram the dirt firm around the bottom of the rails, and pin on a piece of strapping to the plates to confine the upper ends, and put on a roof of split clapboards, or whatever is cheapest, leaving the gable ends of the roof open. Such a fixture, placed in the barnyard near the threshing floor, I found very convenient while I threshed wheat in the barn; and even now I find it very convenient to haul a few loads of straw or stalks, and throw in for oxen and cows that are stabled nights, to pick upon in the day time.

NICHOLAS TITUS.

Rutland, Meigs Co., O., March 14, 1842.

We shall be glad to receive the promised papers from Mr. Titus, on threshing wheat and clearing land.—EDS.

PRIVET FOR HEDGES.

MESSRS. EDITORS—In answer to the query of H. Long, Esq. of "Long Green, Ill.," in the Cultivator, vol. IX. p. 46, concerning the use of Privet for live fences, I would say that it has been fully tried in Illinois, and found wanting. Some 15 years ago, it was frequently seen either in garden hedges or as an ornamental shrub; but so far as my acquaintance extends, it has died out This is its great fault: it will die out, and that very suddenly. It was propagated by cuttings and layers—not by seed. GEORGE CHURCHILL.

Ridge Prairie, Madison Co., Ill. May, 1842.

MAKING JOINTS WITH THE AXE AND JACK-KNIFE.

"QUID NUNC, what are you trying to construct with your axe and jack knife?" said I to my dilignte and economical neighbor, who was so busy with his work that he could scarcely glance his eye to see who had called on him.

"I was trying to construct a reservoir, to catch some rain water," was his reply. "The joints of my cistern were not made tight, and the earth has washed in and filled it."

O economy, thought I, *what a jewel thou art!*

Here we have it, Messrs. Editors, exactly the *modus operandi* of three-fourths of our farmers; and among them too, some who are constantly harping on *calculation* and *economy.* How striking the contrast between such farmers, and the man who spends his time, and exhausts his patience, in constructing a vat to hold water with a jack knife and axe.

The honest farmer, who is the spine, the bone and the muscle of the land, lives beneath his rights and his dignity. He suffers himself to be led about by the oppressive hand of the speculator, or the cash of the selfish nabob, as the patient ox is led to and from the stall, forgetting his superior potency, and unmindful that he has horns that may *hook,* or "heels that may kick" his first aggressor. The truth of the business is, too many of our farmers "blunder along" through the world, with little or no order, bad management, bad calculations. Too many spend their time in the old routine of business, without regard to improvement or system; are always doing and never done; and never know into which vessel to pour a fluid, for the joints of all are made with the axe and jack knife.

There is my industrious neighbor A., than whom a more systematic and economical man never lived, (as he thinks,) and one who has always attached the greatest importance to economy, in door and out. His father gave him a noble farm, which puffed him up with self-importance; he married the belle of the city, for she could drum neatly on the piano, or chant melodiously in unison with the guitar: but the organs of hearing were sadly pained at the vibratory tones of the frying pan, or the harsh notes of the dish kettle—it was too condescending to wait on the dinner table—she must parade in the parlor or lounge on the sofa—or ride in the chaise with her consort, and with the velocity of Jehu dash about town to make her fashionable calls. The upshot of the matter has been, A's farm has been taken away by the merchant, ten acres at a time—his costly furniture, his china, and silver plate, were sold at sheriff's sale—his costly cottage was taken from him, and he learned, as many others do, when too late, that tight joints cannot be made with the axe and jack knife.

Here comes Mr. G. What has he on board? Ah! he is going to the tannery with hides. He is a practitioner of the skinning system. He laughs at book farming; scowls at agricultural journals; and wonders how farmers can content themselves with fifty or a hundred acres of land, and be obliged to keep so little stock. The result was in his case, as it always is. He was always in a hurry; was obliged to do all things for the *present,* and not with reference to the *future;* must accomplish so much in a given time; keep so much stock on a given quantity of fodder; therefore, in the fall his straw was not properly secured, his corn stalks remained in the field, his roots not properly saved from the frost, and before spring, he is running about town trying to purchase a little straw, to keep his cattle out of the mud, and a little hay to keep them from starving. It is clear that Mr. G. has not learned that he cannot make a water proof cistern with the axe and jack knife.

There is my friend S., who has just begun in the world, but at the outset he imbibed the idea that cultivating the soil was a drug, and that the mercantile business was just the thing for him. He sold his farm, went in partnership with a friend as inexperienced as himself, and the consequence has been, his draw was made with the axe and jack knife, and his money all slipped through.

And here is his neighbor D., who is in trouble *up to his knees.* Spring has come on. He let out his teams during the winter, to be worked for their keeping, and they are now wholly unfit for work, and must be lifted up whenever they lie down. He, like too many others, loved to be independent in regard to threshing his grain. So he purchased a *two horse* machine, with which he could thrash when he chose, and with his own hands. The issue was, he could not thrash as much with his machine, as the hand required to tend it, could with flails; and further, it was always out of order, and a complete *kill-horse.* One word as to threshing machines—don't trust to these "pepper mills." Five and six horse machines are the only ones that should go into a barn. Threshing with these little half-built, dangerous machines, is like making a water tight vessel with the axe and jack knife.

Mr. F. is a pretending, but in his own estimation, an able jurist. His daily walk is to the store, where he keeps gentleman's company. He rants exceedingly; pronounces freely on the expediency of such and such topics of legislation; talks of Shakspeare; peruses Gibbon's Rome; makes now and then a journey to the county seat, and struts along the path with all the pomposity and ostentation of a blue hen with a speckled chicken. Meanwhile his fields are overrun with weeds; his fences scattered to the four winds of heaven; his cattle are the rulers of his domain; sheep, swine, and geese, feed from the same trough, and occupy the same cote; and those that get the most are the best fellows. Here is rigid economy practiced on an extensive scale; for the trough being made with the axe and knife, what falls through, the hogs and geese will pick up. In the next yard, horses, cows, and calves, feed from the same rack; the weak ones are driven about by the strong; the fat grow fatter, and the poor poorer; and before spring, he, like Mr. G., has a lot of hides for the tanner.

When shall we all learn that tight joints cannot be made with the axe and jack knife.

One word in closing. Let us then exert our influence; use our utmost exertions, to hasten the day when the farmer shall take the station which the great Jehovah designed for his occupancy: when penury and want shall be driven from the land, and vessels and implements be introduced, made by the *real artizan,* for those that owe their origin to the axe and jack knife. ECONOMIST.

SETTING GATE POSTS.

MESSRS. GAYLORD & TUCKER—In former numbers of the Cultivator, I have noticed several plans and descriptions of farm gates, furnished by different gentlemen, some of them very good. But the one figured and described in a late number, by your esteemed and very interesting correspondent, James M. Garnett, Esq. President of the "Agricultural Society of the United States," I think is the best one I have seen; and the iron "fixings" which he describes, strike me as being a great improvement, and peculiarly calculated to preserve the gate in its proper square form, without which it is impossible any gate should work well. But the most important part of a good gate—indeed a part upon which depends entirely an absolutely its successful operation—has been overlooked or omitted by these gentlemen, I believe without a single exception. I refer to the gate posts. Almost any farmer can make a gate, and a good one too, but very few can, or do put up the posts properly; and unless these are so put up, the best made gate in the world would be an aggravation, instead of a convenience. To make up in some measure this deficiency, I propose here to add what is believed to be, by at least one humble practical farmer, the best mode of setting gate posts; and if any of your readers know of a better, I hope they will let us have it through a communication in your columns, not forgetting to add that other very important though much omitted appendage, at the bottom, their real name and whereabouts.

Gate posts should be made of some durable timber, large enough to square not less than ten inches above the surface of the ground, and then full size left below; excepting about one foot on the gate side of the posts, which should be hewn for the end of the bed piece or sill to rest against. The posts should be set four feet deep, and the hole in which they are put, should be so large as to leave a space of four inches on every side, which should be filled up with small stones and leached ashes firmly beaten down around them. A bed piece or sill of round timber, ten inches in diameter, sawed square at the ends, is then snugly fitted in lengthwise between the posts, and bedded down in the earth so as to project three inches above the surface; this will prevent the posts from swaying towards each other, and if the gate should sag so as to rub on the bottom, a small wedge driven in between the end of the sill or bed piece and the post upon which the gate hangs, will immediately bring it up again to its proper position. This bed piece will also prevent swine from rooting under the gate to effect a passage; and being three inches higher than the surface ground, the gate may be hung to shut so close upon it, as to prevent the smallest pigs from crawling through. Some farmers have had this bed piece tenanted into the posts and firmly pinned, and the consequence was that the posts in the spring were found thrown up out of their proper place, by the action of the frost upon the bed piece. This will always be the case when the bed piece is fastened to the post, but if put in as I have directed above, this evil will be entirely avoided. J. HORSFIELD.

Castile, N. Y. April, 1842.

AMERICAN BREEDERS.

EDITORS OF THE CULTIVATOR—It is I think a true saying, that one extreme begets another, and whenever we permit ourselves to indulge in extremes, even in the best of causes, we create suspicion, excite jealousy, cause disappointment, and throw obstacles in the way of that sure, practical instruction, which, if ever, we receive it generally through our agricultural publications, must come from those who derive theirs from the stern realities of every day experience. Having been a tiller of the soil from boyhood, bred and fed some stock, sufficient perhaps to justify me in making a few remarks, I do not now attempt it, without being perfectly aware of my inability to impart much instruction to others, or feeling the necessity of receiving much myself.

And first as regards the breeding of animals. How many there are who appear to be ignorant that there is any *art* in breeding, or that are aware, that if they were in possession of some of the best bred animals, they would inevitably, without the skilful and constant exercise of that art, soon see their produce rapidly retrograding to their original state. It is discouraging to hear the frequent outcrys against importing any more stock from abroad, and the assertions that we are now prepared to breed independently. Why just look around us for one moment. Where are all those fine Spanish Merinos that the owners were a short time ago, almost obliged to send a begging for purchasers, and sell at such prices as they could get? Why I venture to say, there is scarce a pure bred flock of those animals in the country; and where is the man that will now attempt the task of breeding the cross blood Saxons into such sheep as the Spanish Merinos formerly were? They were larger, longer lived, hardier, and would produce almost double the quantity of wool that the present mongrels do. The man who wishes pure Spanish Merino stock, must now import it; the old fashioned kind are not to be found; and I have no knowledge of any one in the middle or eastern states who is prepared to go ahead either in breeding sheep or cattle for any time, without fresh importations.

As for any one attempting to establish a distinct breed from our best cross blood animals, it is my opinion, if he would try all his skill for twenty years, the probability would be, that he would be no nearer the object of his wishes than when he commenced. It certainly requires great *art* and *skill* to keep up a breed when you have it, pure, but to attempt to establish a pure breed from mongrels, is just such a job as I should not advise any one to undertake, whenever they have the opportunity of breeding from pure blood stock. The want of opportunity to make the necessary crosses with different families of the same blood, is, I conceive, one of the greatest disadvantages under which breeders in this country have to labor. Even when we breed from pure blood always on the sire's side, we are likely to have discouraging obstacles to contend with, before we can feel much confidence; and when we have attained to what would be considered full bloods, it will be well if we are not sometimes disappointed in our expectations.

I would therefore advise every breeder to aim at breeding and maintaining pure blood, whether Devons, Herefords, or Short Horns; and let their choice of these depend on the quantity of feed their land produces. If this is abundant, any of them will do well; but if scant, the Devons are preferable.

As regards the partialities or prejudices of different persons to different animals and their breeders, I would most earnestly recommend every person who has a judgment of his own, in which he feels at all willing to confide, to examine for himself; for I verily believe that *self interest* is the mainspring that moves most of us in the cause. Far be it from me to dare to assert that there is but one man's herd in England that would improve our own; but I dare say with confidence, from personal observation, that I do believe there is neither quackery or "witchery" about Bates or his stock. I fancy it takes realities to induce the Royal Ag. Society of England to award prizes to, and toast their successful breeders. As to the representatives of Bates' stock in this country, I believe they are few. He has not been in the habit of purchasing of other breeders, to speculate on in the United States. I am, however, gratified in being able to say that I have one of them, (a three years old past, Yorkshireman,) and if some of the spirited breeders in your vicinity, would desire to see him placed along side of theirs, when they pass through Philadelphia on their way to the National Show, I should be willing to gratify them with an opportunity of seeing how he would compare with theirs. I remain respectfully yours,

JOSEPH COPE.

East Bradford, Chester co. Pa. 13th of 5th mo. 1842.

P. S. I hope some breeders will turn their attention to the handling properties of cattle; as I am convinced the knowledge so imparted, is of great importance in making correct decisions. To understand it, it is only necessary to practice handling different animals. J. C.

REMARKS OF "AGRICOLA."

MR. THRALL'S OAT CROP.—By reference to his statement, Cultivator, vol. IX. p. 48, Agricola will see that nine bushels are charged, which of course is the quantity sown on the four acres.

CUTTING UP CORN.—Alluding to Commentator's remarks on cutting up Corn, p. 52, Agricola says: "I apprehend that Commentator has not seen stalks put up in the right way. His stooks are perhaps made too small, and not bound sufficiently tight at top. The practice has of late years, become very general and very popular in the west."

HORSES.—It has frequently occurred to me that there was too little attention paid to horses, by yourselves and correspondents. There is no subject relating to agriculture, which may not be profitably discussed in your paper; and certainly there are but few matters more closely connected with the comfort and interest of the farmer than this. The draft horse, the carriage horse, and the saddle horse, are all in which he is interested, or at least which *legitimately* claim his attention. Hogs, cattle and sheep, have received all due attention—and it is right that it should be so—an interest has been awakened which has resulted in great good; and why may not the same interest be aroused in relation to the horse? A writer in the Cultivator (Mr. A. B. Allen, I think,) has remarked that there are but two classes of horses in Ky., the one adapted to the turf, the other fit for nothing. I quote from memory, but think I do not misstate. If this is the condition of that State, which has devoted so much attention to the subject, lamentable indeed must be the condition of those which have devoted none. But with all due deference, I will demur to this sweeping denunciation, and may at some future day attempt to prove to others, if not to himself, that there are other horses in Kentucky, besides the Woodpeckers, the Medocs, the Noaxies, the Franks, the Trumpetors, the Glencoes, and that thing with the speed of light, the famous Grey Eagle

PARSNEPS—STABLING HORSES.

MESSRS. GAYLORD & TUCKER—Of the Parsnep noticed on page 14, (current vol. of the Cultivator,) there was only one variety, the common garden, known in Britain, until of late years; it is a vegetable little esteemed. Loudon in his Encyclopedia of Gardening, says—"There is only one variety in general cultivation in Britain. The French possess three, the *Coquaine*, *Lisbonaise* and *Siam*. The *Coquaine* is much cultivated in Guernsey and Jersey; the roots are sometimes four feet long, and are rarely so small in circumference as six inches, having been known to reach sixteen. The leaves of this variety grow to a considerable height, and proceed from the whole crown of the root. The *Lisbonaise* does not extend to so great a depth as the Coquaine, but the root is equally good in quality, and what is lost in length is gained in thickness; the leaves are small and short, and proceed only from the centre of the crown. The *Siam* has a root of a yellowish color, not very large, but tender, and more rich in taste than the other varieties."

I am inclined to think that the degeneracy complained of by Mr. Jennison, may arise from one or the other or all the following causes: poverty of the soil; want of due attention in selecting the largest, smoothest, and best formed roots for seed; mixture with the common variety; or always growing from seed raised on the same farm; this last is a fruitful source of deterioration in a number of vegetables; for seed, the largest and best formed roots, free from fingers and toes, should be selected, when the crop is gathered, and laid aside to be planted in the spring, in a rich, light, deep soil: the main crop for use, should be sown on a similar soil, dug or plowed deep, well manured with decomposed dung; when that cannot be obtained and recent manure is used, it should be laid at the bottom of the trench or furrow.

Were attention paid to the above particular, I think the varieties would not degenerate, especially if due care is used to get the seed from a distance.

As already noticed, until of very recent date only one variety was known in Britain, and that little esteemed, and less cultivated; the other varieties being so recently introduced, are not yet to be had at the majority of the seed shops or stores. This I conceive to be the cause of Mr. Loudon's recommending the seed to be procured from Jersey or Guernsey, and not because the plant has degenerated in Britain; there, plants will not be so apt to degenerate as in this continent, as the growers (with few exceptions,) are supplied by the nursery and seedsmen around London, Edinburgh, and a few more of the large cities; and these spare no expense to raise true seed of the best quality, as their success in business depends on their doing so.

Since I came to this country, I have had my cabbage seed from New Hampshire, and in a pound of it, one true plant of the variety said to be purchased, cannot be obtained, nor two plants alike; but they rise up a motley crew of mongrels, Savoys, cabbages of all varieties, Ruta Baga, German Grenz, and Brocoli, all sported together, from want of atttention in keeping the seed beds duly separated.

I shall now make some remarks on the article headed "Stabling Horses," at page 21.

Mr. Stone's experience of the injurious effects to the hoofs of the horse, in allowing him to stand in the stable among his dung and urine, is what attends all such management. The crust or horn of the hoof is composed of numerous fibres held together by a glutinous substance, elastic and very tough; much of this elasticity and toughness is destroyed by keeping the animal in the stable, among litter saturated with urine and the juice of the dung, the horny substance of the crust becomes brittle, and liable to chip or break off.

The remedy recommended by Mr. Stone, I disapprove of. All oils are of a drying nature when exposed to the action of the atmosphere, and tend rather to increase than remove the evil, caused by injudicious stable management. Moisture is indispensable for keeping the hoof in a healthy state; oil, therefore, applied to the hoof, hardens it and prevents the dew and rain from penetrating and nourishing it, hence brittleness and contraction follow. It was a common custom in Britain, with the mail and stage coach proprietors, to oil or grease the hoofs of their horses, but it was very soon given up by all who attended to its injurious effects to the feet of their cattle. The appearance of a well groomed horse is certainly improved with its hoofs oiled, but the poor animal suffers for the vanity of his master or groom.

To prevent the injurious effects of the dung and urine to the feet, there is nothing better than a mixture of clay and cow dung, applied to the sole of the foot as soon as the horse is put into the stable; this I prefer to the piece of felt recommended in the "Horse Book," for this reason, that, unless frequently washed or renewed, gets saturated with urine, whereas the clay and cow dung is applied fresh every time the horse is put into the stable; in this climate during winter, it may be more convenient to use the felt than the mixture. Cow dung being of a cooling nature will do by itself.

About 25 years since, I had a horse lame from corns in the fore feet, which were cured by pairing the sole, and stuffing with the mixture.

Of the course pursued by Mr. Stone, the "Horse Book" (so strongly recommended by your intelligent correspondent Commentator,) says, "The common stopping of *tar and grease* is peculiarly objectionable, increasing the dryness and brittleness which it was intended to remedy."

SCOTUS.

Ascot, L. C. Feb. 17, 1842.

WEEDS OF AGRICULTURE.

[WE are pleased to be able to present to our readers this month, the first of a series of papers on the Weeds of Ariculture, from the pen of Dr. L. C. BECK. They cannot fail, we think, to be acceptable and useful. Based, as the reader will see they are, on a valuable English work, we trust Dr. B. will see the propriety of rendering them as much Americanized as possible—that is, in the methods for destroying the weeds noted, adopting such crops and courses of farming as are best adapted to this country. It can scarcely be doubted by any one who has reflected on the subject, that the average farm crops are reduced at least one-fourth by the presence of such a multitude of various weeds as infest the most of our farms; and anything which shall have a tendency to diminish this evil, will be gladly received by all.]

On perusing a foreign publication with the above title, it occurred to me that a work of a similar kind might be useful to American agriculturists. I have, therefore, availed myself in part of the information there contained, and have made such additions as seemed to be necessary to carry out the object which I have in view.

I propose from time to time to furnish, for the columns of the Cultivator, short papers on the subject of these *vegetable loafers*, and should the plan meet the approbation of our farmers, I may hereafter be induced to publish the whole in another form, with such illustrations as may be required to identify the plants described. In the mean time I should be glad to receive descriptions of any troublesome "weeds" found in any part of the United States, and accounts of such methods as have been successfully employed for their extirpation.

It may perhaps be proper to remark that the essay which constitutes the basis of my communications, was written by Benjamin Holdich, Esq., who is represented to have been a practical farmer of great ability, as well as a man possessing the most extensive and correct knowledge on rural affairs. He was a native of Thorney, in the isle of Ely, England, and was born Nov., 1770. At the age of twenty-three he emigrated to this country, where he remained seven years, visiting most of the states, and the then uninhabited western territory. He returned to England, married, and settled in his native parish as a farmer in 1801–2. Subsequently he became the editor of the Farmers' Journal, a situation which he filled with ability until the time of his death, which took place in the spring of 1824.

In the introduction of the essay on the "Weeds of Agriculture," the author states that the work owes its origin to his receiving a letter as editor of the Farmers' Journal, from a gentleman in Durham, of which the following is an extract: "Would any of your numerous correspondents point out a work as a book of reference, for the destruction of weeds, to which a young farmer might refer? It should be alphabetical, with the Linnean and provincial names, and the best mode of extirpating them." To this correspondent he says, "it could only be answered that there was no such book; but on a little reflection it appeared highly desirable that such a book should be written, and the result is this essay. It did not appear, however, that an *alphabetical* arrangement was required; but rather that a proper division of weeds, as to their agricultural character and demerits, would be more useful, and would lead the inexperienced reader more readily to what he desired to find."

I will only add that the original essay of Mr. Holdich was quite imperfect, and was subsequently much improved by its editor, Mr. G. Sinclair, author of the Hortus Gramineus Woburnensis. LEWIS C. BECK.

New-Brunswick, N. J.

The weeds of agriculture may be classified as follows:

1st. Those which infest samples of grain of different kinds.

2d. Rooted or fallow weeds, and such others as are hard to destroy.

3d. Those which are principally objectionable as they encumber the soil.

4th. Underling weeds, such as never rise with the crop, nor come into the sickle.

Under these heads, each weed in its respective division, will be treated of as to its deteriorating qualities and mode of destruction.

Weeds which infest grain of different kinds.

The weeds of this description are few in number, and it very rarely happens that more than two sorts are found associated in one sample of grain. They vary as to the soil so much that some of the worst weeds in fens and marshes are not known at all on clay, cold soils, and are but little seen on any sort of dry turnep land. Light loams and deep loose soils have naturally the greatest number of weeds. It would seem, therefore, to be desirable to treat of weeds in reference to the soils on which they prevail; but this end may be attained by remarks introduced into the notices of the several kinds.

I now proceed to notice some of the weeds belonging to this division:

1. DARNEL, often known in this country by the name of *Chess*. Also called *Smoth rye* and *Brome grass*. It includes the two following species, viz:

BROMUS SECALINUS. *Linn.*

BOTANICAL DESCRIPTION.—Panicle spreading, slightly subdivided below. Spikelets ovate, about ten, distinct, somewhat cylindrical. Florets smooth. Awns wavy, shorter than the glumes. Leaves slightly hairy.

BROMUS MOLLIS. *Linn.*

BOTANICAL DESCRIPTION.—Panicle erect, rather close, compound. Spikelets ovate, downy. Florets imbricated, depressed, ribbed. Awns as long as the glumes. Leaves and sheaths very soft and downy.

These plants mostly grow in fields, but are most hurtful among rye grass, which is mowed to thrash. In the sample, the seed is larger than the rye and has a shorter awn. It is just so heavy that it escapes the degree of wind which the rye grass will bear, and therefore infests the samples as they are offered by farmers; but the seedsmen who buy large quantities, take it out by means of a sieve which allows the rye to pass through.

The darnel, (*Bromus secalinus,*) is an annual plant, being in its growth and appearance similar to grain until it puts forth its characters of fructification. It is usually quite thinly scattered where it does grow, and it cannot be weeded out. It is seldom found except where it is sown with the seed grain; but where it has been sown, it is sure to be found in the crop. About the time that the grain begins to form, or somewhat later, the darnel throws out its flowering panicles, which, as the grain ripens, droop, each spikelet with its heavy load of seeds. These drooping spikelets are flat, somewhat short and nearly smooth, with the seeds much crowded. As they ripen, the leaves drop away and the straw rembles that of oats. The seeds, which are thicker and heavier than those of rye, contain a large quantity of nutritious flour, and fowls, pigs and horses are very fond of them.

The soft brome grass, (*Holcus mollis,*) is earlier than the preceding, and its seeds are, for the most part, shed before the harvesting of grain crops. This weed is, therefore, less pernicious in grain crops than the Bromus secalinus.

The objection to darnel, with the miller, is that it is tough and somewhat soapy, and thus dulls the stones. When a sample of wheat contains so much of it as to be rough in hand, its value is considerably reduced. The farmer should be very careful not to sow these seeds with wheat. It is said that they have not been observed in any spring crop.

On reviewing the description of these weeds, we can at once see what has given rise to the common, but mistaken notion, in regard to the change of wheat into chess. Such is the general resemblance between the two kinds of seed, viz: those of darnel and wheat, that without much care they may be mixed and grow up together. If such a change as this can take place, the wonder is that wheat should not have undergone other changes, and finally been entirely lost. We cannot entertain such notions without at once forgetting all that is known concerning the permanency of species and their mode of reproduction.

2. COCKLE, often known in this country by the name of *Corn campion*.

AGROSTEMMA GITHAGO. *Linn.*

BOTANICAL DESCRIPTION.—Whole plant, except the petals and capsule, covered with soft hairs. Calyx longer than the corolla. Petals entire or slightly emarginate or naked.

A well known annual weed, of rather an ornamental appearance, bearing purplish red flowers. In the spring its leaves are long, downy and slender, and the plant is strong and conspicuous at weeding time. It grows somewhat tall before it branches, and is in full flower and bearing when the wheat is ripening, growing two feet and a half high. The seeds are very numerous and contained in bulky capsules; they are black and rough, resembling a rolled up hedge hog, are nearly as large as small wheat kernels, and are filled with white flour. The miller's objection to these seeds is that their black husks are reduced to so fine a powder as to pass the boulters, and thus render the flour specky. Moreover, as the seed is bulky, if there be much in the sample, it detracts considerably from the produce in flour.

3. MELILOT. *Yellow clover*, or *common melilot-clover*.

MELILOTUS OFFICINALIS. *Willd.*

BOTANICAL DESCRIPTION.—Stem erect, branching. Leafets lanceolate-oblong, obtuse, remotely serrate. Spikes axillary, paniculate. Legume 2-seeded, rugose. Style filiform, as long as the legume. Seeds unequally cordate.

This is an annual plant growing with an upright stem, from two to three feet high, branched and furrowed with spikes of yellow flowers. The capsules containing the seed are very tough and wrinkled, growing in bunches. Each capsule is generally one, or sometimes, two-seeded, but thrashing does not dislodge them; so that in samples of wheat, the wrinkled capsule is called the seed.

This is, of all others, the most pernicious seed in wheat, a few seeds communicating a very strong smell to the flour. The plant delights in stiff soils. It is very palatable food to all sorts of cattle, and has a pleasant odor when cut down and dried. Nevertheless, as a weed in arable land, it cannot be too much guarded against, and ought never to be sown with seed corn. Moreover, it should be carefully rooted up by weeding in the spring, for when it has once been introduced, it propagates itself by scattering many seeds before the crop is ripe. Hence wheat, on land so infested, should always be sown on a naked fallow.

TARES.—This name is applied to two distinct species, viz. *Ervum tetraspermum* or *smooth tare*, and *Ervum hirsutum* or *hairy tare*.

ERVUM TETRASPERMUM. *Linn.*

BOTANICAL DESCRIPTION.—Stems cespitose, branching. Leafets 4-6, oblong, mucronate. Stipules lanceolate, semi-sagitate. Peduncles 1-4 flowered, filiform. Segments of the calyx unequal, broadish, shorter than

the tube. Legume oblong compressed smooth. Seeds subglobose, black.

This plant, which is often met with in the northern states, flowers in May or June. The stem is very slender, the flowers small and of a bluish white color.

ERVUM HIRSUTUM. *Linn.*

BOTANICAL DESCRIPTION.—Leafets linear, obtuse, mucronate. Stipules semivagittate, narrow. Peduncles 3-6 flowered, shorter than the leaves. Segments of the calyx linear-lanceolate, equal, longer than the tube. Legume oblong, compressed, hairy, finely reticulate. Seeds globose, variegated.

Widely diffused through the United States, and like the last, flowering in May or June. The stem is two or three feet long, much branched and diffuse. Leaves cirrose. Flowers very small and bluish white.

Our author states that it is said that on dry soils, in wet seasons, these plants have destroyed whole crops. He has seen several samples of wheat and barley very much infested with the seeds of tares, but he always took them to be the seeds of the cultivated tares, especially of the winter sort; yet the spring tares may grow amongst barley; and both in this way become injurious weeds. The seeds of these are much larger than those of the wild tares.

The miller's objection to these seeds is, that they have a strong taste when ground in the flour. Hence it seems to become an important consideration, whether field tares should be suffered to go to seed, or rather to be fed off, and plowed down soon enough to prevent it. Also for soiling, small patches may be set apart, and seeds, at last, may be raised therefrom. For it seems to be a doubtful advantage in agriculture, that the introduction of tares should overrun our fields with new enemies.

5. WILD OATS.—Sometimes also called *Bearded Wild Oats* or *Haver*.

AVENA FATUA. *Linn.*

BOTANICAL DESCRIPTION.—Panicle erect, compound. Spikelets pendulous. Florets about three, shorter than the calyx. Seeds bristly at the base, with an oblique scar, all awned.

This weed, according to our author, used to abound on stiff clays, in open fields. It prevailed to such an extent in some wheat fields, that at harvest the whole crop would appear to be wild oats. The seed is sometimes larger than common oats, of a dark brown color, and has a very rough awn or beard. Of course millers may well object to them; for when many prevail in a sample of wheat, they occupy a considerable portion of the measure.

It does not appear that in the spring these weeds can be sufficiently distinguished from the wheat plants to be selected and weeded out, which is also the case with darnel, and is the more to be lamented, because the best system can hardly be expected to eradicate those weeds, in regard to which the hoe and hand cannot be brought in aid of the fallow and row culture. But this ought to be strictly attended to, as being the strongest argument possible, why these seeds should not be sowm with seed wheat. So far, the farmers who pay attention, are masters of these weeds; and it must be a wilful neglect not to act accordingly.

LETTER FROM SOLON ROBINSON.

WE give the following extract of a letter from our friend Robinson:—"I have received several letters, enquiring why I have discontinued my correspondence to the Cultivator. I assure you that it is not in consequence of any disinclination on my part. I am as anxious to gratify those of my friends, who are pleased to read my communications, as they can be to read them; but a great pressure of business has wholly prevented me during this spring. I have been so hard at work that I have been obliged to forego the pleasure that I always feel when engaged in contributing my share of instruction or amusement to my fellow laborers.

But I assure you, and you may assure your readers if you see proper, that the time is not far distant when, I hope, many of your readers will be pleased to see again the familiar name of their old friend

SOLON ROBINSON.

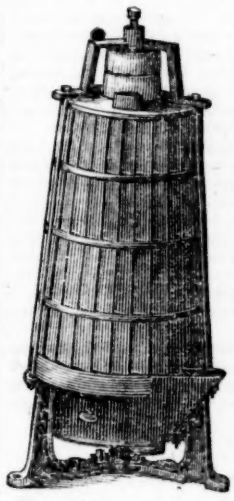
Lake C. H., Ia., June 8, 1842.

NO NEST EGGS.

MESSRS. EDITORS—In one of the late numbers of the Cultivator, I observed an article on having hens lay perpetually, by allowing them neither cocks or nest eggs. Until the present season I have always been careful to leave a nest egg for my hens, and during the time there was danger of their freezing, chalk eggs were substituted for the others. This year I have about 40 hens, mostly pullets, and three cocks. They commenced laying in the latter part of January, and up to the last of April, about 90 days, have given me about 120 dozen of eggs. For a short time I used chalk eggs for nest eggs, but they were soon picked to pieces and eaten by the hens, and since then no nest eggs have been allowed. No dissatisfaction has been manifested by the hens in consequence of this treatment, and I have not known a single nest deserted because the eggs were all removed. I have kept corn in the ear, where the hens had constant access to it, and I kept a box of sand, lime, gravel, ashes, &c., in which they could pick and dust themselves. I prefer allowing the hens to help themselves to corn, to shelling and feeding it to them; as in the first place they will eat no more than they want, and a few will not keep fat at the expense of the many; and, secondly, there are few animals on the farm that pay better for good keeping than fowls. They would pick a few kernels of corn and then be off to the straw yards, or to their nests. Young hens, I have found, are much better layers than old ones; but they should be early chickens, or they will rarely begin to lay early in the next season.

A YOUNG FARMER.

BAILEY AND RICH'S SMUT MACHINE.—(Fig. 68.)



THE undersigned announce to the public, that they can, in their opinion, supply millers with a better smut machine than has ever before been used, and at a moderate price.

With only a velocity of about 450 revolutions per minute, it will clear off the fuz from the ends of each kernel, and expell all the smut and dirt even from damp grain. The small machine will clean 15 to 25 bushels per hour, and the large one 75 to 100 bushels.

It is so constructed that there is a strong current of air passing horizontally through the machine, operating upon every kernel of grain while in motion and forcing from the grain every particle of dust as soon as created.

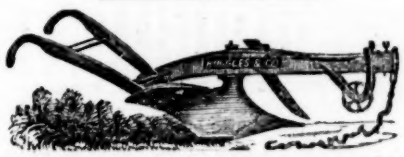
The machine is wholly composed of iron and steel. The heads and staves of cast iron, shaft of wrought iron and boxes and pivots of cast steel, (there are only two boxes and two pivots to a machine.) The machine is put together with screw bolts, and can easily be taken to pieces and put together again.

The small machine is three and a half feet high, and twenty one inches in diameter, and weighs about 350 lbs., and will be sold at 100 dollars each, upon a trial of three months, warranted to suit.

The inventors, T. R. Bailey and Ezra Rich, *mill wrights*, have been 14 years experimenting upon smut machines, and have at length succeeded in producing that simple, efficient and durable machine so long desired by millers.

The machine was patented last year. All letters on the subject, to be addressed to BAILEY & RICH.

Shoreham, Vt., June, 1842.



WORCESTER PLOWS—AGAIN.—(Fig. 69.)

MESSRS. EDITORS—In the April No. of the Cultivator, I took the liberty of calling the attention and recommending the farmers to look at some plows manufactured by Messrs. Ruggles, Nourse & Mason, of Worcester, Mass., on sale at the store of Messrs. Pruyn, Wilson & Vosburgh, in State st., Albany, which I am gratified to say was promptly responded to, and the sales have exceeded their most sanguine expectations. And to show I "practice what I preach," I obtained one of their Eagle plows and put it immediately in operation, first where I grew ruta bagas last year, and since on a strong sward which it turned over twelve inches wide and seven inches deep, with two common sized horses, and with as much ease as three horses before one of our common plows.* Why, there is as much difference in its gliding through the soil, as there is between the sailing of a Baltimore clipper and an old fashioned Albany sloop. I think the Eagle plow, for such a soil as I have to improve, far superior to any other I have ever had in use. I do not say this with a view to flatter, or from a wish to injure any one engaged in manufacturing plows, but on conviction, from *actual experience*, of its truth. Several of my neighbors have seen its performance, and assured me they had never seen such plowing before.

Of all the implements of husbandry in use among us, there has been none susceptible of greater improvements than the plow; and from the great and laudable competition at present existing among manufacturers, (and which I think should be fairly encouraged,) I hope yet, if possible, to see this invaluable implement brought to still greater perfection.

It is now above sixty years since James Small made the great improvement, which consisted in giving the mold-board a curved figure, and made of cast iron. Previous to this invention, the mold-board was made of wood, straight, and covered with thin plated iron. It is only about seven years, since the writer of this was surprised to find some of this description of plows, still in use in Connecticut, between New-Haven and Guilford.

* Since writing the above, I find in the last No. of the Cultivator, I am supported in the opinion expressed of its execution and ease of draft, by one of the editors, who has one in use.

In respect to Small's improved plows, Lord Kaimes, who was a good farmer, said "That no plow would cut the furrow so clean, or turn it so nicely over for receiving benefit from the atmosphere, and none so easily drawn." Could he have lived to have witnessed the operation of the Eagle plow, I think he would have altered his opinion.

As much of our success in crops, depends in a great measure, on the proper breaking up and subsequent plowing of our land; and as a good plow is therefore highly necessary, I confidently recommend the Eagle plow, as admirably calculated, for strength, durability, and cheapness of repair, and it may be considered a most valuable acquisition to our catalogue of implements. It enters and raises the soil like a wedge, while a surface of polished metal of those parts which come in contact with the soil, lessens the friction. And here I would remark, that in the whole length and breadth of the mold-board, not a particle of earth was lodged, showing most conclusively, that it is formed on correct and scientific principles, and that they will perform their work with more ease to the team.

Farmers, if you have any feeling for your team, or regard for your corn crib, I again advise you to lose no time in furnishing yourselves with one of these plows. But to be honest, there is one objection to them, especially where there is more than one plowman, on the farm, as each must be furnished with one, or there will be "trouble in the camp," and in the present depressed state of the times it is no easy matter to raise the wherewith to purchase many.

If any one doubts what I have said, all I ask is to satisfy themselves by actual experiments; or if they will take the trouble to call at my farm, I shall take great pleasure in showing the superior work performed with the plow.

C. N. BEMENT.

Three Hills Farm, May, 1842.

FLAX AND HEMP PULLING MACHINE.

MESSRS. EDITORS—As your publication is by all acknowledged to be the best medium of communication extant with the agriculturists of this country; and believing it would be both profitable and interesting to a great portion of your readers, I have obtained leave of the patentees of the flax and hemp pulling machine, Messrs. Britain and Silvers, to use this medium of making their invention more public.

It is well known to the flax grower, that one of the greatest difficulties connected with the flax crop, is to get it pulled in season; if allowed to stand but two or three days too long, it is not easy to reckon the loss and the difficulty of pulling; the loss occasioned by its standing may be obviated by the use of this machine, which in itself is very simple, to accomplish so complex an operation. The machine consists of a platform borne up by three small wheels; the power is obtained from a revolving axle by cog geering, which, by the use of a band, gives motion to a vertical drum placed on one edge of the platform, and as the machine passes along one side of the flax or hemp, it is gathered by a finger, and embraced between said drum and band, when it is pulled from the ground and deposited on the platform. The machine is easily drawn by two horses, and managed by two hands, and will pull from three to five acres per day. Mr. Lewis, a neighbor of mine, has a machine with which he pulled sixty acres last summer, and he says that it was admitted, by a number of persons he pulled for, that it pulled the flax cleaner, and saved more of the seed than in the ordinary mode of pulling. I have been engaged in the manufacture of flax for a number of years; a considerable portion of the flax I have dressed and manufactured for two years past, was pulled by this machine, and so neatly does it accomplish its work, that it would baffle the skill of a practical flax breaker to define whether it had been pulled by the machine or by hand. There was a considerable number of machines in use in this county last summer, and I have no doubt that the number will be at least double the present season. Machines are manufactured and sold by the patentees at Mount Airy, Hunterdon county, N. J. They will also have one in operation for pulling hemp the present season. The price of machines at the manufactory, is 90 dollars. Yours truly,

JOHN WALKER.

Sidney, Hunterdon co., N. J., June 16, 1842.

"FREE MARTINS."

WHEN a cow has twins, one of which is a bull and the other a heifer, the last is known by the name of free martin, and the general impression is that such are always barren. In a late note to us, J. Cope, of Chester co. Pa., says—"Having spoken last year to some of my friends, of two instances in which it was probable that heifers were likely to breed, both of which were twins to males, I can now state that they have both produced calves this spring. As it is supposed by most people that this circumstance can only happen when the heifer was the larger of the twins, I have made some inquiries on this point. In the first case, the female was decidedly the larger of the two; in the latter case, from what I could learn, I think there could be little doubt there was the same condition existing in the two, although the difference in size may not have been as marked as in the first instance."

THE Wellington (U. C.) Agricultural Society will hold their next Fair at Guelph, on Tuesday, the 11th of October next.

TO MANUFACTURE CORN FOR EXPORTATION.

MESSRS. EDITORS—By your request, in favor of Mr. C. L. B. of Ohio, the following is at your service:

Contrive to wet the kernel, sufficient to loosen and toughen the hull, either by steam or water; it may be sufficiently well done, by lowering it into the water in a basket, and raising it immediately, letting it drain half an hour or more, but a large business could not be done to advantage in this way. I am inclined to think that steam for this part of the operation, can be used to the best advantage. After which, is required, a pair of good burr millstones, very nicely hung on a stiff horn, if exclusively for this purpose, but common loose hangings will do, if the stones are well trimmed and balanced; by these the corn is to be cracked and hulled, by running it through as coarse as possible and have every kernel broken; from which it is passed through a wire bolt, calculated to separate three or four grades of meal, the coarsest of which, is from thence passed through a machine similar to a bolt, made wholly of iron, and in the place of cloth, sheet iron is used. At the lower end is an arch for fire, the flue passing the whole length under, and leading to a chimney at or near the upper end. There should also be a perpendicular flue, continued from the higher end of the cylinder, to create a draft of air through it, which will very much facilitate the departure of the dampness. From this it passes through a machine similar to a common smut mill, which separates all the hulls left by the bolt, and the soft parts that adhered by the dampness, when it is ready for market, and will keep any length of time, as well as rice.

In this process the corn requires but little drying, none in fact, if it be dry enough to grind well to begin with, and not wet too much in the operation. The chit and all the soft part being separated from that intended for market, leaves it perfectly safe from the injury complained of in its natural state, the chit being the only part in fault, when the heating process takes place.

I have prepared corn in this way for my own use, and find it a great improvement, aside from the convenience of keeping, from the quality of the food prepared from it, which may be used in various shapes. The coarse part may be used whole in place of rice, for puddings, &c., or it may be ground as fine as flour, and used for similar purposes. In the hands of an ingenious cook, I consider it one of the greatest luxuries among our articles of food; for cakes and puddings, if managed right, there can nothing surpass it.

There is no waste in this process; although the western corn may be too soft to yield a large proportion for market, yet what is left is as good to feed, as it would be with the other.

A building for this purpose, should be very high, to economise machinery for conveying from one machine to the other, that the process may not be laborious. I am now erecting a building, seventy feet high on the lower side, and about forty-six feet above the surface of the mill pond, which I intend for an apparatus of this kind, in connection with a grist mill. I did intend to take out a patent for the operation, but have made up my mind, if it will benefit our common country, by enabling our western friends to export their surplus corn, almost the only limits to which, would be the demand for it, not to take advantage of a law, that is a curse to our country in the way it is administered.

As regards the casks for putting up the manufactured corn, it requires nothing different from those for rice or pearled barley; it may be transported in barrels, boxes, or bags, with the same care and convenience required by rice or flour. I think your correspondent of Ohio, will find the cheapest casks or conveyance that will be sufficiently safe, to be the best, without regard to the ultimate purpose for which they may be designed; as nine purchasers out of ten, would prefer it in its cheapest shape, and the tenth would probably let the empty casks go to decay, whether they are worth anything or not.

Yours respectfully, D. S. HOWARD.

Lyonsdale, N. Y. April 5, 1842.

COBBLE STONE HOUSES.

MESSRS. EDITORS—In 1835, I built me a house of cobble stone, of the following description: front 45 by 23 feet, 2 stories, forming an L in rear of 65 by 23 feet, single story, for kitchen, wash room and wood shed. My plan for thickness of wall was, the cellar wall 20 inches thick to first floor, drop off 2 inches to second floor, then drop off 2 inches and extend out to top. Sort your stone so as to have the outside courses 3 or 4 inches, with straight lines for cement. Take the coarsest of sand for the stone, and a fine sand for brick. I used the common stone lime, one bushel of lime to seven of sand for stone; and the same kind of lime, one bushel to two of sand, for brick. I furnished all materials on the ground, and paid my mason $3.75 per 100 feet. He furnished his own tenders and made his own mortar: built his own scaffolds, and tended themselves. I boarded them. I think I have as good a house as can be made of the same materials. There is not a crack in the walls that you can stick a pin in as yet; the stone I do not consider any expense, as it frees the land of them; there is no painting to be done to it, as is required to brick or wood; it makes the strongest of wall, and I think the neatest and cheapest building that can be built. You may calculate the expense of a building at so much a perch, according to the size you wish to build. I did not keep an exact account of my building, as the stone, sand, and lime, were brought at leisure spells. P. P. BONESTEEL.

Victor, Ont. Co. N. Y., March, 1842.

RAISING INDIAN CORN FOR FODDER.

IN compliance with a request in the Cultivator, for some experienced farmer to give information on sowing corn broadcast, for soiling cattle or horses, I submit the following remarks, which are based upon three years experience in that mode of feeding. This spring I have sowed my fourth crop for this purpose. My mode of feeding is to sow one acre the first of fifth month, one acre the first of sixth month, and one acre the first of seventh month, more or less, according to the number to be fed. Three acres as above, will feed about 20 head, if on good land, and sown two and a half bushels to the acre of small grained corn, which is to be preferred to larger. The stalk being slender, is eaten by the cattle, and nothing wasted. I have generally had from about 60 to 70 tons of green food to the acre, and think it decidedly better than grass, for either beef or milk.

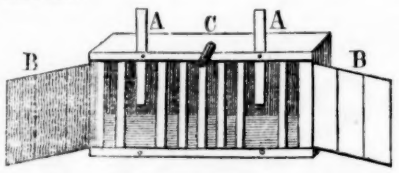
Having made a few experiments on my regular corn crop, this spring, it may not be amiss to communicate the results to the farming community. My object was to exterminate the cut worms and ants, to effect which, I tried the application of salt, by scattering it over my hills. The ants disappeared immediately. I have only tried it on a few rows, but it has done so well, I think I shall go over more. Some of my neighbors encouraged by my success, are also trying it. When the experiment is fully tested, we may give more satisfactory information.

I have allotted a part of my corn ground for raising corn to manufacture sugar from next fall, and should be glad if some one already experienced in the process, would communicate it through the columns of the Cultivator. DAVID MILLER.

Luzerne township, Fayette co. Pa., 1842.

MANAGEMENT OF FOWLS.

MESSRS. EDITORS—I have managed thirteen hens the past season, according to the directions given in the Cultivator, and I am happy to state that I have more than realized my expectations. Although I have no convenience but a common barn to keep them in, I think they lay quite as well when rightly attended, as they would in a hen house. I have tried several kinds of grain, and am satisfied that corn is the best. I have read in some paper, that hog's lard, mixed with meal, (say a piece as large as a walnut,) is a good article to induce hens to lay. I have tried it, and proved it to be so. My hens are of the Poland breed. They have layed from the middle of January to the 9th of April, 476 eggs, and continue to lay at the same rate.



Hen Coop.—(Fig. 70.)

The above cut is a coop of my invention, which I think is very convenient. It may be made of inch boards, long enough to admit of any number of fowls. A, A, slats to be raised for admitting the hens—B, B, doors to be shut at night, to prevent the intrusion of any kind of vermin—C, button for fastening the doors.

A few words in regard to the benefits arising from taking the Cultivator. Four years ago, our orchard consisted of wild trees, bearing very sour and crabbed fruit; now we have eighty thrifty trees, grafted to the most excellent kinds. Now, Messrs. Editors, do you think these eighty trees could be purchased for the three or four dollars paid for your valuable paper?

And to close, I would advise all young persons, if they feel any interest in the welfare of their country, to read some agricultural paper; and to study it as they would their school books, that they may be prepared to be good farmers when grown up. Yours, &c.

LAWRENCE SMITH.

Middlefield, Mass., April 9, 1842.

TO DESTROY THE CANADA THISTLE.

FRIENDS GAYLORD & TUCKER—I have resided for many years past on land that was infested with Canada thistles; it was my practice to sow my corn hills to spring rye, and I found by experience that the earlier I got my crop in, in the spring, the heavier it was; and my farm being of a sandy soil, I was enabled to plow early in the spring, so that I was in the practice of sowing by the middle of the 4th month, (April:) consequently my land was plowed frequently before the frost was all out of the ground. The effect of this mode of cultivation, was an almost entire extermination of the thistle. One piece of two acres or more, where the thistles were very thick, I plowed the forepart of the 4th month, (April,) and sowed it to rye as usual, about the middle of the month; the result was a heavy crop of rye, and a complete extermination of the thistle, there being but two stools found while harvesting the crop. I have therefore come to this conclusion, that early in the spring before vegetation starts, the root is hollow, and plowing at that time severs them, and leaves the roots exposed to the leaching of the earth, and whenever water penetrates the roots, death ensues. AB'M MERRITT.

Stillwater, N. Y., 1842.

Domestic Economy.

LADY CONTRIBUTORS.

MESSRS EDITORS—Your paper is devoted to the farmer, and every thing that relates to his interest or benefit; why then may we not consider it as devoted to his wife and his daughters? They are intimately connected with him; they have the management of his household affairs, and they are the ones to whom we should go for lessons in domestic thrift and economy. I can see no good reason why there should not be as many lady contributors to a farmer's paper as to any other; the volume of nature is open before them, and experience proves they are skilful and tasteful observers, and they have here as wide a field for their genius as men. To them belong the garden, the flowers, and fruit, and in particular, every department of household industry and economy. I was very much pleased at seeing the Farmer's Breakfast, in the Cultivator, by A Farmer's Wife. Pray encourage your fair correspondents in the use of their pens.

A YOUNG FARMER.

While we would express the pleasure we have felt in the reception of so many valuable papers from our fair correspondents, we would repeat the wish of our correspondent above, (who dates from the Mississippi valley,) that we may be more frequently favored by contributions from their pens. It is unnecessary for us to assure them, on behalf of ourselves and readers, that they are always most welcome.

MAKING BUTTER.

MR. WERE of London, who has been for more than thirty years engaged in the butter trade of that city, has furnished a paper to the New Farmer's Journal, on the best methods of preparing and keeping butter, from which we extract the following:

"Solidity and firmness, is, I think, of more consequence than is generally allowed; the nearer butter can be made of the consistency of wax, the longer will it retain its flavor. * * To accomplish this object, I recommend salting the cream, by putting in rather more fine table salt than is used when applied after churning, because a part will be left with the buttermilk; or instead of salt, use strong clear brine to mix with the cream or butter. * * * Brine is preferable to salt, as the butter is smoother and better flavored. If salt be used, it may be in the proportion of half an ounce of fine dry table salt, mixed with two drachms of saltpetre, and two drachms of sugar, both made fine, to every pound of butter. If the butter be made into lumps for the market, I should recommend that each lump be wrapped round with a piece of calico, soaked in brine made from fine dry salt, that will carry an egg, for if the brine is weak, it will be injurious. If the butter is put into a firkin, the cask should be made of white oak, ash, sycamore, or beech, well seasoned by scalding out several times with *hot* brine, made from pure and clean salt. If very choice butter, I would recommend a salt cloth around the butter, also on the top and bottom; the cloth to be kept in its place by a hoop, which can be removed as the cask fills." Mr. Were deprecates the use of the hand in making butter, and recommends the use of wooden pats, not unlike our farmer's wive's butter ladles, for beating out the buttermilk or packing in casks. "These pats must be always (except when in the hand for use) kept in a tub of cold fresh water, which will prevent the adhering of the butter, and keep them cool."

SCOTCH DRINK.

MESSRS. EDITORS—Judge Buel says in the 2d vol. of the Cultivator, of "Harvest Drinks"—"A Scotchman not liking our Yankee drinks, begged a little oat meal, that he might just make a wee bit o' Scoech drink. He was indulged, and by degrees our Yankees, Irish, and English, for we happen to have all these about us, became so partial to Scotch drink, that it was adopted as the field drink by general acclamation. It is cooling, strengthening and allays thirst; it is truly, victuals and drink." I invite my brother farmers to try it. "To make this Scotch drink, denominated crowdy, put a tea cup full of oat meal into two gallons of water, and stir well before drinking." L. DURAND.

Derby, Ct. May, 1842.

CURE FOR WORMS IN CHILDREN

A writer in the Farmer's Register, who being a slave holder has a large family under his care, says that for nearly 30 years he has found the following preparation a certain cure for worms. "Take the fat of old bacon, sliced and fried in a pan until the essence is all out of it, take out the rind first, then put in as much worm seed (vulgarly called Jerusalem Oak,) as is necessary, as much sugar or molasses as will make it palatable, and give it three mornings in succession. The children will eat it freely—some you will have to restrain from eating too much. Incredible as it may appear, I have known as many as one hundred and twenty or thirty large worms come from a child three or four years old. I usually give the medicine spring and fall."

TO STOP THE EFFUSION OF BLOOD.

"A Subscriber," near Frederick, Md., gives the following from Ewell's Medical Companion, as a powerful styptic. "Cranesbill, (*Geranium maculatum*,) called by some crow-foot geranium. It grows from six inches to

two feet in height, in meadows and woods, has long slender stalks, with seven long narrow leaves at a joint. The root has an astringent taste and an aromatic flavor. Applied externally, it is highly extolled as a styptic in stopping severe hemorrhages of wounded vessels. The root powdered, or a decoction made in milk, is excellent in obstinate diarrhœa."

"Touchwood, *Boletus egniarius*, called by some punk, and generally used for catching fire with flint and steel, especially that which grows on the oak, is considered a valuable styptic. If powdered and applied to violent hemorrhage, it will in most cases be found to stop the bleeding." A number of cases showing the efficacy of the Geranium or cranesbill, may be found in Mead's Medical Museum.

EDS. CULTIVATOR—The long necked squash, sliced and cooked like the egg-plant, is as good if not better than the egg-plant. W. T.

Silk Culture in the United States.

COCOON FRAMES, &c.

MESSRS. GAYLORD & TUCKER—Silk worms begin to spin cocoons in from 25 to 35 days from the hatching. The time may be shortened or prolonged, by proper or careless management. If the different hatchings have been kept carefully separated, and the worms properly arranged on different hurdles at each molting, nearly or quite all the worms on each hurdle, will commence their cocoons on the same day. Their readiness to spin will show itself by their transparent appearance, their wandering about, and throwing out silk fibres on the leaves and hurdle frames.

Various contrivances have been adopted for spinning frames, and probably no two individuals use exactly the same. In most parts of Europe, small brush formed of oak twigs, are set up in hedge form across the hurdles, the tops spread out and pressing against the bottom of the hurdle above, the bottom resting on the floor of the hurdle on which the worms are. For some years I used broom corn in the same way, and preferred it to brush or any other contrivance, as being much neater, more easily prepared, and equally useful. In a late French work, I observe they are now adopting broom corn in France, for the same reasons. If the lath hurdles described in a former paper, have been adopted, a large portion of the worms will climb the broom corn and spin between the lath of the upper hurdle. With this view a row of broom corn may be set up across the middle of the hurdle, and another in the middle between that and each end. These three rows of brush with the laths above, will form space enough for all the worms on the hurdle to spin in; and if there are any worms that have not yet began to spin, they may still be fed between the rows of brush. A frame of sawed laths may also be easily and cheaply made, by tacking wide tape on the ends, as described in a former paper. When made, this frame resembles a Venetian window blind, except that each alternate lath is inclined in an opposite direction; the inner edges approaching within half an inch of each other, and the outer edges say two inches apart. This may be suspended by the ends of the tape to the hurdle above, at each end and in the middle of the hurdles. It serves both as a ladder for the worms to climb to the laths above, and for a spinning frame also; as the position of the laths forming an angle, is very convenient for the worms to commence their cocoons. The edges of the laths at the inner angle, should not approach so nearly as to prevent the worms passing between them.

The great value of properly separating the worms at the hatching and moltings, will now be apparent to the attendant. If they have not been thus separated, the worms on each hurdle will be from a week to ten days in commencing to spin; that is, it will be that long from the time the first began to spin, before the last begins. This is not only extremely inconvenient, but often detrimental to the operator's interest; as those that have not began to spin, must be fed until they do commence; and this too, amidst the spinning brush and frames; by which the spinning worms are greatly disturbed in their work when they ought to be in perfect quiet, and thus imperfect cocoons are produced. Loss is liable to occur from the millers of those that began first to spin, cutting out of the cocoons before the last have finished. All this is obviated by properly separating the hatchings and moltings in the first instance. But if these separations have not been attended to, the evil may be partially obviated by the use of extra lath hurdles, to be placed immediately under the regular hurdle above, to receive the worms that may mount each day, and gently removing it in the evening with such worms as have begun to spin, to a separate stand, marking it with the day the worms began to spin. This is a troublesome method, and requires the preparation of a great number of hurdles, more than will be necessary when a proper separation of hatchings and moltings has been attended to.

The worms should be allowed four full days to finish their cocoons, before they are disturbed; after which, the cocoons may be gathered, flossed and reeled, or *cured* for future reeling. Here again, the importance of all the cocoons on a frame being of the same age, is apparent. If the cocoons on a frame were begun on three several days, or more or less, four days must be allowed after the *last* began to spin, that all the cocoons may be finished; bearing in mind, that if the weather be very warm, the millers will begin to cut out on the tenth day after the cocoons were commenced; and that it will not be safe to allow more than five days mountings on the same frame.

If the cocoons are to be *cured* for future reeling, the best method is to place them in a perfectly tight box and sprinkle them with pulverized camphor. A box to contain a hundred pounds, may be made like a chest, perfectly tight. Three ounces of camphor, in powder, to be sprinkled among them as they are put in the box in layers, first sprinkling a small portion on the bottom. Then shut the box tight, and leave it thus three or four days. Then take them out, and spread them in the shade till they are perfectly dry. The box may be made perfectly tight by pasting strips of paper over all the joints. When cured in this way, Miss Rapp, (from whom I obtained the plan,) says the cocoons reel just as easily as if they were perfectly fresh and had not been cured. Other plans of curing cocoons, have been practiced: such as baking them in ovens, steaming them, spreading them out in the hot sun, placing them in hotbed frames under glass, &c. Baking in ovens is the mode generally practiced in Europe; all which harden the gum by heat, and make the cocoons more difficult to reel, and sometimes injure the silk. The camphor process of Miss Rapp, I think is incomparably the best. I must not omit to mention another process, which has not, however, been tried to a sufficient extent, to authorize any thing more than an experiment to ascertain its practicability. It has all the recommendations that reason and philosophy can afford, and ought to be thoroughly tried. It is to prepare a tight box, as is done in the camphor process, put in the cocoons, paste up all joints and crevices; then apply an *air pump* to an aperture made for the purpose, and exhaust the air from the box. Let the box remain a few hours, say twelve to twenty-four hours, then take out the cocoons and spread them out to dry, as in the camphor process, in the shade. I have no doubt this will be an effectual, and if so, it will certainly be the cheapest and best of all methods, to cure cocoons. After the cocoons are cured and dried perfectly, they should be put in bags or nets, and hung up in a dry airy place, to secure them against mice, roaches, &c. till wanted for reeling or for sale. Great care must be observed not to crush or indent the cocoons in handling them, as it renders their reeling more difficult. G. B. SMITH.

Baltimore, June 9, 1842.

The Garden and the Orchard.

SEASONABLE HINTS.

ALTHOUGH August is generally considered the best month for budding or inoculating fruit trees, yet there are some on which that operation will succeed as well or better in July, than at a later period. All the stone fruits are better propagated by budding, than by grafting, though the latter may be successfully performed when circumstances render it advisable. In budding, should the operation fail, the stock is not destroyed, and the process may be repeated at pleasure. For the peach, plum, cherry, and apricot, inoculation is peculiarly adapted, and every farmer should make himself acquainted with the best methods of doing this, as described in the previous volumes of the Cultivator. A poor fruit tree occupies as much space as a good one, and the cultivation and management is as expensive. Profit as well as pleasure then, would seem to indicate the propriety of paying more attention to the propagation of the best fruits. To the fruit grower, "Kenrick's American Orchardist," of Boston; or "The Orchardist's Companion," a periodical of the highest merit, by Mr. Hoffy, of Philadelphia, will be found a great acquisition.

It will be well to look frequently to your plum and cherry trees, so as to detect the first blight or rust upon them, as on the prompt attack of this disease its eradication is mainly depending. Spare no branch on which these unsightly protuberances appear; but cut and burn them at once. Thousands of the best fruit gardens in the United States, have been ruined within the last five years by a neglect of this evil, trifling indeed in its commencement, but increasing with alarming and frightful rapidity. Those only are exempt, who never allow the blight to show itself, without immediate extirpation, thus at once destroying the insect that causes the mischief, and the means by which it is multiplied. Good fruit, of these kinds at least, can only be secured at present, by active care and exertion; and those whose fruit gardens are at present exempt, should be watchful, lest ere they are aware, serious damages are perpetrated.

The garden will require much care during the month of July. All your onions, carrots, beets, &c., should be properly thinned, and the earth frequently stirred about them. No where in the garden should a weed be allowed to show itself with impunity. Do not allow too many melon or cucumber plants to grow in a hill. If too crowded the vines will lack nourishment, and the fruit be inferior. Some cut off the vine of the melon, after one or two have formed upon it, thus forcing the plant to give all its nutriment to these alone; but where the plants are at suitable distances, and properly thinned, we have preferred leaving the vines to take their own way in perfecting their fruit. Cucumbers and melons while forming their fruit, require a plentiful supply of water, and if not furnished by rain, it must be given them by hand. All watering of plants should be done at evening, as the evaporation is less rapid during the night, and the plants are more benefited by the application.

There are many herbs which should be saved for use as they arrive at the proper state, which is when they are beginning to flower. They should be cut when free from moisture, and cured in a dry place. There are some herbs which every farmer who keeps horses, &c. should preserve, as valuable for veterinary purposes; unless he goes upon the principle that it is better in all such matters, to trouble those who show a little forethought, than to exercise it for himself. Seeds too as they ripen should be gathered, carefully cleaned, neatly done up in papers, and labelled, so that you can lay your hand on them at once. Change of seed is doubtless at times important; but farmers could, with a little attention, raise at least as good seeds as those usually sold.

THE GARDEN.

EDITORS OF THE CULTIVATOR—Judging from my own feelings in similar cases, I presume you have, in passing by a house in the country, in some unsightly, craggy, shapeless situation, felt a degree of sympathetic regret that the inhabitants were destitute of a proper site for a handsome garden; such a garden perhaps, as we sometimes, but not too frequently, see with delight, in passing through some pleasant village or a smooth extensive plain. But to relieve this regret, my own reflections have suggested, and perhaps yours have done the same, that the level is not the indispensible pre-requisite in a beautiful location, but that the same disgusting roughness, if ingeniously modified and tastefully worked on, may be found to constitute the very quintessence of beauty, capable of attracting our highest admiration.

I had peculiar confirmation of the truth of this remark, in a recent visit to a cordial friend, who resides a few miles north of me. My friend is an aged gentleman, who lives at his ease, on the income of several hundred acres of valuable land; but age has had but little effect in dimming his bright eyes, and still less in abating his sprightly and entertaining conversation. As was said of Dr. Franklin, "His mind is ever young; science, which never grows gray, has always been his mistress."

The location of his mansion, was originally such as a superficial observer would have considered any thing but interesting. It stood on a small eminence, facing the east, with an open front view, and pretty fair rural prospect; but the scenery around it rather rough and unsightly, and a ledge of rock in the rear excited no particular interest in its favor.

On a former visit, I had hinted at some little improvements of which it might be susceptible. But how pleasing was my astonishment on the last visit, to find those hints not only improved on, but the whole subject carried infinite lengths beyond any thing my fancy anticipated; and those very points which many would have considered deformities, now constituted its principal beauties. Indeed, the whole establishment now presented a most delightful appearance.

But the garden, and the rock which enclosed it, were truly enchanting. The garden consisted of about an acre, principally enclosed on two sides, and entirely on the farther end, by the ledge, the two ends of which, commencing several rods back of the house, at a small elevation from the ground, rose gradually as it receded back, to sixteen or eighteen feet in the rear, forming on the inside a complete wall of rock; while about half an acre of ground on the outside, was equal in elevation with the top of the rock, and swelling very gently each way, afforded on each side a good collection of native and foreign trees and shrubs, and a delightful situation for rural walks, or for any kind of cultivation.

The form of the enclosure by the rock, as nearly, perhaps, as it can be expressed mathematically, is the central, longitudinal section of the frustrum of a cone, the larger and open end towards the house, and the smaller or farther end enclosed by an outward course of less than a semi-circle. This ledge, or rather garden wall, is being covered with vines and creepers, producing a fine variety of flowers. An ornamental fence encloses not only the garden, but the ground for some distance from the top of the rock, and closes the opening left by the rock.

A worthless little brook was transformed into a pretty stream, and managed with consummate skill to produce effect; entering the ground on the left of the ledge, and keeping along the elevated ground within the outward enclosure, turns to the north and passes off between the house and the garden; a Chinese bridge is now being made to cross it in going to the garden. The brook being sufficiently elevated to be conveyed to any part of the garden for the purpose of irrigation, if necessary, and also to supply artificial fountains, or to fill small basins to contain fish.

The garden is well stocked with fruit and ornamental trees, and flowering shrubs; also an interesting collection of flowers, both indigenous and exotic, of almost every kind the climate, with the most careful nursing, will permit to live.

Thus, this originally rather rough situation, is, by the efforts of industry, less directed by a refined taste, made to present infinitely more and stronger attractions than any human art could produce upon a smooth and extensive level. MAGNOLIA.

USEFULNESS OF TOADS.

EDITORS OF THE CULTIVATOR—I will take the liberty of stating to you some facts relative to the protection of garden vegetables from the attacks of the cut worm, and some others of the same tribe. Some years ago, when dressing my garden, I discovered a toad nested under a plant, and shortly after hoed up a cut worm, which I

shoved near the toad, who snapped him up as soon as he got sight of it. The thought occurred to me, as the toads and worms both came out at night in search of food, it would be good policy to gather up the toads and put them in my garden to catch the worms. I did so, by catching all I could find about my door yards, hopping about at night-fall, put them in my garden, and was not troubled with the worms that season. I have repeated the experiment with the same success ever since. I consider it also an act of humanity to keep them out of the boy's way, who are apt to torment the poor creatures, when hopping about in search of food. If the heads of families would prevent their small children from destroying the toads, and larger boys from shooting and pelting with stones the birds which feed on worms and insects, they would come around our premises, and do a great deal in relieving us from their depredations on our fruit and gardens. S. McCOY.

McLand, April 20, 1842.

Veterinary Department.

ROYAL VETERINARY SCHOOL AT ALFORT.

THIS is one of those institutions under the care of the French government, connected with the agricultural farms, the establishments for improving animals, and the *haras* or collections of horses intended by the government for furnishing cavalry horses for the army. It is a Veterinary school on an extensive scale, where any student may make himself acquainted with the diseases and their treatment, to which most animals are subject. From a summary of the Annual report which has been placed in our hands, we make a few extracts. During the last year there were admitted into the Hospital, 569 horses, 2 asses, 8 mules, 4 bulls, 2 goats, 294 dogs, total 879. Of the horses, 515 were dismissed cured; and of those that died, 17 were of glanders. Of the dogs, 260 were cured, and 30 died.

There were brought for consultation, 2129 horses, 10 cattle, 41 dogs, and 2 pigs, total 2182. The horses that were sent for operations of various kinds amounted to 252.

To the students of the fourth year, the care of the out-door patients is confided. These amounted to 280 sheep, 104 pigs, 8 cows, and 94 horses.

"An agriculturist in the neighborhood of the school, had, in 1819, a hundred pigs, which were suddenly attacked by disease, and they were all dead in 15 days. In June last he bought another hundred, which were soon attacked, and seven of them died in less than 48 hours. M. Delafond observed in those that died, and on eighty-eight that yet lived, acute inflammation of the roof of the mouth, and of the tonsils, with the formation of false membranes. The Professor, assisted by two of the pupils, lightly cauterized the affected parts, and applied to them a mixture of honey and hydrochloride acid, in such proportions as to produce a slight degree of causticity. Out of the eighty-eight that had been attacked, eighty-five recovered."

In the Report, the singular fact is stated, that the beech mast, (*fagus castanea,*) or as it is called in this country, beech nuts, and which in many districts of our country, form no inconsiderable item in the means of fattening pork and keeping store hogs, is a violent poison when fed to horses. Bad effects having ensued from feeding the cake, remaining after the pressure of the oil from the nuts, to horses, M. Lefort of Champlette, sent to Alfort some of the oil cake made from the nuts, and some of the nuts themselves, for experiment. The horses evinced much disinclination to the feed, but the director forced on some of them a portion of the oil, and on others some of the cake from which it had been expressed. They all died within twelve hours after the administration of both. This furnishes another curious instance of articles of food, perfectly innocent to one animal, and yet fatal to another. Beech mast is the favorite food of the common pigeon, (*Columba migratoria,*) and multitudes of pigs have been wholly wintered, the last winter, on this fruit.

VETERINARY LITHOTOMY.

WE are much obliged to our correspondent A. P. Tuttle, for the communication below, on the successful performance of the operation of Lithotomy, or extraction of the stone, in a horse. It is the first attempt of the kind that we have known in this country; although it may have before been performed here. Mr. Youatt says, "the symptoms of stone in the bladder, much resemble those of spasmodic colic, except that on careful inquiry it will be found that there has been much irregularity in the discharge of urine, and occasional suppression of it. When fits of apparent colic frequently return, and are accompanied by any peculiarity in the discharge of urine, the horse should be carefully examined. He should be thrown. If there be stone in the bladder, it will, when the horse lies upon its back, press on the rectum, and may be distinctly felt if the hand be introduced into the rectum. Several cases have lately occurred of successful extraction of the calculus; but here it is necessary to have the aid of a veterinary practitioner." Mr. Tuttle's paper would have appeared in the May No. as desired, but did not reach us until that No. was in the press.

MESSRS. EDITORS—If you please, you may insert in your valuable paper, the following account of the operation of Veterinary Lithotomy. The case was of a horse twelve years old; had been a valuable horse, but ailing somewhat for the year past. On the 16th inst., [April,] I operated upon him for stone in the urethra. The stone was lodged in the urethra about three or four inches below the anus or rectum. We cast the horse for the purpose, as for castration. I made the incision through the integuments, and then through some considerable thickening of the parts between the integuments and the urethra; the incision externally, was about one and a half inches in length. I cut down upon the calculus at once, as near as possible. On extracting it, I found it of a perfectly globular form, three and a half inches in circumference, and weighing above half an ounce. It was evident the horse could not have lived long in that situation, as he had not passed his urine for two and a half days, and was suffering extreme pain. Since the operation, the horse has been doing well.

Yours respectfully, A. P. TUTTLE.

Truxton, Cortland co., April, 1842.

CURE FOR THE HOOF-AIL.

MESSRS. EDITORS—While reading a cure for the Hoof-Ail, in the Cultivator, vol. VIII, p. 16, I was reminded of my own experience in attempting to cure that disease.

In May, 1825, I had a cow violently attacked with the hoof-ail, or foul hoof, as it is frequently called; and being but little experienced in the management of cattle, or the means of curing the diseases to which they are subject, I applied to my neighbors, who I thought were best informed on such subjects, for the necessary information. They directed me to draw a hair rope through the cleft of the foot, until it became raw or lacerated. I followed their direction, but found little or no benefit resulting from the operation. The animal still grew worse, hobbled about on three legs, declined in flesh, and was almost worthless for milk, the remainder of the season. A year or two after, I had another cow attacked by the same disease; and thinking it somewhat similar in its nature to a felon, I became convinced of the propriety of opening it. Therefore, when the cow lay down, (which she frequently did,) with a sharp knife, I made an incision lengthwise through the skin on the bottom of the foot, where it was most swelled and inflamed. It bled pretty freely, and in a day or two after, I perceived matter making its way out from the cut, and in a few days the animal was well.

Since that time, I have had a number of cows attacked by the disease, and (when bad,) I have always applied the same means, and invariably with the same success.

H. CLARK.

Minisink, Orange Co., N. Y., April 8, 1842.

BLOODY MURRAIN.

IN a communication from J. C. Stone, Esq. Deep Water, Mo., we find the following description of the disease among cattle called Bloody Murrain, as it appears in that section of the country, where it is very prevalent and fatal; and he requests such information as to its cause, treatment, and remedy, as may be in possession of our correspondents.

"The symptoms of the disease here, are stupidity, hanging, and shaking of the head; as it progresses, it is attended with constant scouring, with frequent discharges of bloody matter from the bowels and urine, and frequently from the mouth and nostrils, in the last stages of the disease. The attack generally comes on very suddenly, and from the time the bloody discharges commence, (which is frequently the first knowledge we have of the existence of the disease,) the animal seldom lives more than from 12 to 36 hours. Bleeding, which I have often tried, *copiously*, I am sure hastens the animal's death. The frequent use of salt as a preventive, I have found ineffectual, as also most of the remedies generally recommended."

We have never had cattle affected with murrain, but have been inclined to believe the disease to be the result of bad pond or ditch water, having never known it occur where cattle had pure water to drink, free from blood-suckers, and the other reptiles that infest stagnant pools in the hot months. As a preventive, the use of a portion of quick lime with the salt fed to the stock, has been found in some districts of Michigan very successful, and we think that pure water, with a supply of such salt, would in most cases prevent the disease.

RELIEF OF CHOKED CATTLE.

MESSRS. GAYLORD & TUCKER—As I was perusing the January No. of the Cultivator, I noticed that your correspondent J. V. recommended a hickory ramrod (or piston,) to relieve choked cattle. I have known cattle killed by the use of such an instrument, it bursting or breaking the pipe. The best method and easiest, is to take a lump of lard (cold,) about the size of a hen's egg, and a spoonful of powder mixed with it, and haul out the tongue and throw it into the throat; let the tongue go back, and they are relieved in one minute. J. JUDSON.

MICHIGAN LAND AND TAX AGENCY, DETROIT.

THE subscriber, residing at Detroit, Michigan, informs those owning lands in that state, that the sales for lands upon which taxes of 1838 are unpaid, will take place in the early part of August next, in the respective counties. The taxes can now be paid at Detroit. Those interested who wish their taxes paid, can have their business done faithfully and promptly by the subscriber. The taxes of 1841, now bear 50 per cent interest. Letters addressed to the subscriber, postage paid, containing description of land with remittances will meet with prompt attention. WM. T. YOUNG.

Detroit, May, 1842

NOTICES TO CORRESPONDENTS, &c.

LETTERS have been received from correspondents during the month of June, as follows: James M. Garnett, John Morgan, F Burt, Roedale, G. Cook, N. N. D., H. D. Grove, S. W. Jewett, Magnolia, G. B. Smith, A Young Farmer, David Miller, G. Churchill, Solon Robinson, A. of the North, Commentator, Baily & Rich, E. Cornell, P. R. S., Geo. Billings, P. L. Simmonds, A Subscriber, Seth Whalen, E. Lockwood, D. Miller, Economist, and A. B. Allen. [We shall publish Mr. A's. reply to Dr. Martin next month, as Mr. A. thinks justice to him requires it. Had his request been received in season, it would have appeared in this number.]

BOOKS, PRINTED PAPERS, &c.—Half a dozen copies of a "Letter to Lord Ashburton, on the importance of the Corn and Flour Trade with England, via the St. Lawrence; and the Advantages to be derived from introducing Maize into Great Britain, as a cheap food for the Poor"—Addresses of J. M. GARNETT, before the Henrico and Essex Ag. Societies of Virginia—Bell's Weekly Messenger, The Mark Lane Express, a Treatise on Swine &c. from P. L. SIMMONDS, Esq. London—The weekly Nos. of "*The New Farmer's Journal*," for May, from the EDITORS—"Elements of Scientific and Practical Agriculture, intended as a text-book for Farmers and Students in Agriculture, by Alonzo Gray, A. M., author of Elements of Chemistry, and Teacher of Chemistry and Natural History in Phillips' Academy, Andover, Mass., from the AUTHOR—"A Discourse on Education, by John Quincy Adams," from B. V. FRENCH, Esq.—Transactions of the American Institute for the year 1841, from ALEX. WALSH, Esq.—Proceedings of the Alabama State Agricultural Convention, held at Tuskaloosa, Dec. 6 and 7, 1841, with the addresses of the Rev. Dr. Manly and Prof. R. T. Brumly. From some unknown friend.

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BARNABY & MOORE'S PATENT SIDE HILL AND LEVEL LAND PLOW.

MESSRS. GAYLOLD & TUCKER—I wish to avail myself of your valuable journal, to inform the agriculturists of Maine and Georgia, that I have purchased the patent right for the above justly celebrated premium Plow for those states, and am prepared to make arrangements for their immediate introduction, either by the sale of rights to those who wish to manufacture the plows on the spot, or by shipping the plows to the order of responsible persons in either of the above states. Communications on the above subject, addressed to me at Ithaca, Tompkins co. N. Y., will receive prompt attention. The prices of the plow will be the same as advertised by Mr. Henry Moores, in No. 3, vol. IX of Cultivator.

It is my present intention to spend the remainder of the summer in Maine, and the approaching winter in Georgia; when I hope to be able to show the farmers and planters of those states, their interest in the introduction of the above plow in the cultivation of all varieties of soil, both level land and hill side.

Ithaca, June 11, 1842. E. CORNELL.

WARREN'S PATENT HORSE POWER AND THRESHING MACHINE.

THE patentee of these well known machines having made extensive arrangements for their manufacture upon improved plans, and at prices much below those charged for any other machines of the same nature, is now prepared to execute promptly, all orders that may be forwarded to him.

The horse power is very simple and compact in its construction, being only four feet long, two and a half feet wide, and eighteen inches in height, and is especially applicable to the driving of Cotton Gins, Turning Lathes, Circular Saws, Cider Mills, Sugar Mills, and threshing machines for rice, wheat, or other small grain, and for the last named was originally intended.

The Threshing Machine is also very simple and at the same time more effective than any other, while it is also worked with much less power; as with one horse, forty bushels of grain may with ease be threshed in one hour, in a clean and thorough manner. The undersigned, might without violating the truth, go beyond this statement, but desirous of avoiding the appearance of exaggeration, leaves to actual experiment the proof of the surpassing power of this machine; and such is the simplicity of its construction, that any person may without instruction, manage it with the greatest ease.

Price of one horse power,	$40
" two " "	60
" first size Threshing Machine,	20
" second " "	25
" one horse pw'r and thr'g machine, combined,	60
" two " " " " "	75

All letters may be addressed (post paid,) to the undersigned, who is authorised to receive all orders.

LEONARD BOSTWICK, 58 Water st., New-York.

May, 1842.

FROM THE STEAM PRESS OF C. VAN BENTHUYSEN & CO.